

The Manitoba School

A Magazine for Classroom Service

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EDITORIAL

INTELLIGENCE TESTS

For about fourteen years intelligence tests have been experimented with by a large number of the foremost educationists, and the results are now beginning to receive attention. The conclusions of those competent to form an estimate of their value are pretty much in agreement, but the acceptance of them by the general public is not likely to be immediate.

An illustration shows the trend of the present experimenting. It is the story of two children, ages 8 and 11, who had been brought up in a condition of semi-starvation and squalor. When taken in charge by the state officials, they could scarcely make themselves intelligible in speech. An intelligence test showed their IQ to be 73 for the younger and 77 for the older, the normal being 100. For five years the children were given the best of care in an institution where the food was prepared under direction of an expert dietician, the surroundings were cheerful, they had the best of medical care, and they received vocational and academic training in an excellent school. At the end of the time further intelligence tests showed an IQ of 78 and 73 respectively, in other words, no appreciable change. Thousands of examples under observation have given similar results, and lead to the conclusion that education, food, environment, have no appreciable effect, beneficial or otherwise, on the intelligence of the individual. It seems to be true of us all that "we are born and not made," and that this is true just as much in regard to our mental attributes as it is in regard to our stature, color of eyes, or form of our features.

In relation to school work it is found that children of low intelligence often rate high in spelling, writing, and oral reading. In the other subjects, however, the reverse is more generally the case. Intelligence is found to have little connection with personal happiness, popularity, ability

to sing or play, health, athletic ability, self-confidence, and numerous other qualities.

We have learned from intelligence tests that most people are in the normal range with IQ's of 90 to 110; that certain vocations require more intelligence than the average, notably politics, the law, medicine, and engineering; that certain races average high, as for example the Jews; but that all races produce individuals of outstanding ability; that men are not superior to women in intellect; and that hard study at useless subjects will never improve the mind by one iota.

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**CURRENT TENDENCIES IN THE SELECTION OF
CONTENT AND IN THE METHODOLOGY
OF SECONDARY SCHOOL SUBJECTS**

M. E. LAZERTE, M.A., Ph.D.

READING AND LITERATURE

Although the term Reading is included in this title it is not suggested that reading and literature are to be combined in any direct way. Efficiency in reading is basic to progress in literature. A problem is presented to the high school teacher whenever a pupil is found below grade in reading ability. Under present classroom conditions a teacher cannot take time to do individual remedial work. The pupil must assume the responsibility for improving his standing. The teacher may assist by providing the pupil with standardized test material that reveals deficiencies. After the pupil has discovered his weaknesses, he must apply himself. The teacher should give suggestions concerning methods of work, and should take time to convince the pupil that, if he takes his task seriously, he can improve his reading and extend his vocabulary.

Unfortunately there are many high school pupils who have not learned to read before coming to high school. They have mastered the mechanics of reading, but they are yet inefficient in getting the thought from passages in which there is a wide range of vocabulary, or in which any sentence structure other than the simplest is used. Many pupils carry over from the elementary grades a method of reading that is not adapted to different types of subject-matter and different purposes. There are high school pupils whose attainment is not above the Grade VI standard. These pupils carry over oral reading habits into their silent reading. They read slowly. Because of their handicap they find it almost impossible to prepare the same assignments that are given the other students. They read all materials in the same manner, whether they are scanning the content for the main ideas, or considering the minutest details.

Oral Reading

Oral reading has been rather neglected during recent years. The present fascination of the literature on silent reading has blinded many teachers to the fact that there is a phase of language, properly named and taught as oral reading. The influence of scientific studies in education and the lure of "efficiency" have led to the enthusiastic interest of many modern educators in silent reading. Without stop-

ping to analyze the term or the purposes of the activity, oral reading has been discarded.

Many selections studied in high school were written to make their appeal through the ear. Few readers have their powers of auditory imagery developed to the point where the full beauty of these selections can be appreciated without oral reading. After repeated oral reading much of the value may be realized by silent reading.

Many high school pupils are actually aided in understanding the meaning of a selection by oral reading. This is an indication of inefficiency, but, this inefficiency exists. Such pupils are, as in the elementary grades, handicapped in their attempts at interpretation if they attempt to short-circuit the reading process by going directly from the visual symbol to the idea. For these immature pupils it is also desirable that the teacher have some check on their attempts at pronunciation and phrasing, both of which may be elementary.

The beauty of certain selections lies in their rhythm. Such selections are numbered among those that should be read orally.

In building attitudes it is easier to stimulate the appropriate mental states of feeling, when the body assumes the emotional tensions which are their necessary counterpart. These bodily states are more directly aroused by oral reading, gesture, dramatization, or even mere vocalization, than by relatively pure ideational comprehension. Here then is a very important reason why oral reading should receive attention.

Nearly all poetry is music. One does not look at a symphony score if he wishes to fully enjoy the music; he listens to the sound made by the instruments. To hear and fully appreciate the music of poetry one must appeal to the ear, and not to the eye. Pupils cannot read poetry at sight. Just as one must practise music, so must he practise reading a poem if he is to appreciate its music. The teacher's preparation of a selection of poetry should include repeated oral readings before he presents it to the class.

Who Should Teach Literature

It is common practice to give to one teacher on the staff the teaching of all English subjects, subjects that differ very much in their nature. It is evident that in teaching grammar and in teaching literature one is interested in two different types of training. In grammar the pupil is analytical; in literature he must not be analytical in the same manner. One might ask whether one teacher is versatile enough to teach grammar during one class period and then move along the next period to the teaching of literature. Might it be that the teacher of a science subject could train the pupils

in the type of thinking demanded in grammar, while the teacher of music and art may excel in the teaching of literature? Whatever be the qualification of the teacher of literature, he must be primarily intellectually and emotionally responsive to the expression of varied thoughts and moods.

Language Study

It is a common statement that the study of literature should not be spoiled by dissection of the form, either for purposes of word study or for study of sentence form. Appreciation of literature is dependent upon intelligent understanding, which in turn depends upon an understanding of the grammar of our language. Subjects, predicates, objects, phrases, and clauses are not sensed; they are made intelligible through a knowledge of syntax. We asked above whether the teacher of English literature should be the teacher of grammar. At this point one may note that the teacher of literature is more likely to know the difficulties in interpretation and to know what typical language difficulties should be corrected during the grammar and composition periods. There is no point in arguing for or against the fusion of grammar and composition. It is very essential that the grammar taught be of the functional type, and if this result is obtained, it is relatively unimportant whether the work is combined with composition or taught in separate class periods.

Aims in Literature

One guiding purpose is certainly that of building habits of reading worth-while literature which will keep the pupil reading after school instruction is over. The reading habit is basic, and it will have the desired results only when the pupil is interested in literature. Interest will result when the pupil appreciates the content both intellectually and emotionally. The first result comes from the study of English as a tool for expression; the latter is the result of a participation, through extensive reading, in the thoughts, pleasures, and modes of living. One result comes from intensive study; the other comes from extensive reading. These two types of study will develop a taste for good literature, and an enjoyment in representative fields. With these two results, pupils will certainly read throughout adult years.

Vicarious experience through reading permits one to share the ideas and ideals of others, and gives to the individual a broad social training, a background of information, an acquaintance with national ideals, and coherent concept of the continuous and continuing development of society. So equipped, the student will enjoy reading in his leisure time and will benefit mentally by the enjoyment and relaxation which the reading affords.

If pupils become interested in an author, they should be able to satisfy their curiosity by turning to other works written by him. This means that good libraries must be available either at home or at school.

How does the study of literature develop character? Intellectual training alone is not character training. As one studies literature he develops habits of behavior, attitudes, and bodily responses towards specific situations and to ideas concerning them. This change in the total personality constitutes, in so far as it relates to ethical behavior, character training. Here then is the explanation concerning why we cannot teach character. Ideas may remain isolated from behavior tendencies, but, ideas in action in this selected field, alter character.

The moral of a literary selection, if there be one, need not be emphasized. If the pupil has the background of experience assumed by the writer and if he has grasped the message given, he will not need to have the moral placed in relief. If, on the other hand, his preparation has been inadequate, verbal memorization cannot be expected to result in changed attitudes and ideals. Literature is not a meeting ground for the teaching of patriotism, morality and ethics. The text will carry its own message, if the pupil is allowed to re-live with the author the experiences and feelings described.

Considering the aptitudes of all pupils and the variety of their future interests, it is evident that many will be interested in understanding the distinguishing characteristics of structure and form that mark the essay, the novel, the drama, the sonnet, and the lyric poem; and that many will foster future interests by knowing something of the lives of the authors, of their source materials, and of the more intimate incidents of the authors' lives.

The most important purpose that should guide the high school work in literature should be that of developing sincere enjoyment in the reading of good literature.

Method

One should not attempt to teach selections to pupils who are not mature enough to share in the experiences portrayed. Selections must be chosen to suit the age of the pupils. Immature pupils cannot assume and share the attitude of the writer. For immature pupils the social concepts may be too intricate. Lack of social experience may prevent another pupil from knowing whether a given statement or time is intended as a fact, as a thrust of satire, or as a bit of fancy.

Assuming that a given selection is suited to children of a given level of experience, what preparation is necessary before coming directly to the teaching of the selection? Teachers of literature agree that they are not presenting a

sequence of biographies, for these should be given only and to the extent that they throw light upon the poem or prose selection. They are not teaching only selections that are classic masterpieces. They are not willing to be buried in details of historical and geographical setting. In general, the tendency is to give just sufficient background and setting to ensure the placing of the selection in accurate context, for only thus can the author's work be interpreted.

Method is a flexible adaptation of means to end. In the essay, where thought is more important than emotional appeal, one would naturally become interested in the language technique and in the art of expression in this particular type of composition that is marked by clarity and logical sequence of ideas. In the lyric one is interested in sharing emotionally the experiences of others. At times the bare experience is sufficient, sometimes the phrasing, the lilt and the rhyme are so adapted to the mood expressed that one must become interested in them. The teacher can do little to assist the pupils unless, in the experiences presented, his own participation and development has been greater than that of his pupils. There are selections which the pupils will read almost unassisted.

To grasp the sense of a passage, it is frequently necessary to be rather analytical in one's approach. The more backward pupils will be prevented by peculiarities of punctuation and syntax from disentangling the author's meaning. Here is a bit of method indicated.

One main point of emphasis in practice is suggested by common experience in all subjects. Pupils grasp ideas in isolation, but fail so commonly to relate them. In literature, pupils will master section after section, but fail to interrelate them and see underlying and co-ordinating purposes and results.

When the purpose of a selection is to describe a bit of Nature, or to depict a mood, the most helpful introduction, or sequel, is to turn to the study of another selection which shows either marked parallelism or contrast.

Pupils must not be distracted if they are to enjoy and profit by the literature lessons. Teachers must not criticize too freely when the interpretations of weak pupils are sub-standard. Pupils, under criticism, develop repressions and refuse to participate in the class discussions.

Selections which upon first reading are rather meaningless to the student may be understood after repeated readings. Students must realize that at times they must wrestle with the problem of interpretation. To assist pupils in grasping the relation of various sections of a long selection of prose or poetry, or of a play, it is advisable to have them read the entire work through at least once before beginning a detailed study. Essentials in the story or plot are

clearly grasped by the procedure, and the student sketches a full background against which separate parts may be studied apart from their fuller context.

The task of the teacher of literature would be much simpler if the business of teaching English, in its general phases, were assumed in part by each teacher on a high school staff. We have stressed throughout our discussion the dependence of efficiency in literature upon the other English studies. In every subject which the pupil studies, he should be required to meet his best standards in both oral and written work. It is not sufficient that members of the staff give over to the English teacher certain essays and assignments for revision or marking. If this practice is followed, pupils develop a wrong attitude towards the work. They think of one type of English as acceptable to the teacher of English, and of English of an inferior quality, as meeting the requirements of other members of the staff. We have then a situation similar to that reported by Bagley in his discussion of transfer of training, where special habits of neatness did not transfer to subjects other than that in which neatness was developed and stressed. So too, in this matter of English usage, the student's efforts must be controlled by some ideal.

Limitations

Several limitations are imposed upon the teacher of English. The present large classes include very many pupils who have had inadequate training in all basic language habits, and this increases the amount of preparatory work which must be done on all occasions. With an increasing high school population comes an increased number of pupils with dull imaginations. Large classes increase the number of assignments and the amount of individual assistance that should be given.

Pupils who have not read widely, and who have a meagre vocabulary, cannot discriminate between different connotations which a word might have, and failing to be specific in their unitary ideas, they cannot synthesize into the larger unit the intellectual content or the emotional message intended. More elementary than literary appreciation of any selection is the ability to get the thought readily, fully and accurately from the context.

Memory Work

Pupils should memorize first of all those selections which to them are beautiful in form, examples of art, and those which have a strong individual emotional appeal. Some argue that memorized selections extend the pupil's vocabulary, but, this is very unlikely to happen if the pupil does not appreciate the appropriateness of the words and forms used. One questions the wisdom of giving the same

assignment of memory selections to all members of the class.

Memorization of a selection follows and does not precede the mastery of the thought developed in the work.

Memory work must never degenerate to the level of busy work. Pupils who are detained after school hours for absence, tardiness, or misdemeanors, should not be given memory work during detention hours.

Teachers no longer believe that they are called upon to develop the "memorizing ability" of their pupils. Psychology has established the fact that retentiveness is an innate characteristic. It is useless to give long and difficult assignments that are not interesting to the pupils.

Memory work should not be confined to poetry. There are prose selections that will interest the student, and that will serve as models, not for imitation, but as standards by which other selections may be judged. The greater the familiarity of a student with good writing, the greater will be his ability to judge the worth of current literature.

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ARITHMETIC

M. E. Lazerte, Ph.D.

GRADE 1

JANUARY OUTLINE

Scope:

- (a) Recognition of groups: 2, 3, 4, 5, 6 and 7.
Seat work assignments that emphasize groups not counting.
- (b) Vocabulary extension.
- (c) Counting forward and backward from 1 to 20.
Counting from 1 to 50.
- (d) Exercises based upon the number chart:
Counting by 10's.
Counting by 5's.
Adding 10 to any number up to 40.
Finding 10 less than any number from 10 to 50.

Review

No inflexible monthly assignments are given in these outlines. Sequences and types are suggested. If all are not taught in any month, they form the starting point for the following month. There are few exercises that should not be reviewed monthly. Primary children are acquiring many new ideas, and the fact that they are new, prevents the pupils from remembering them.

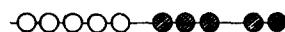
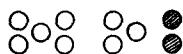
Groups

Little has been said about building and analyzing groups. The emphasis thus far has been upon counting and upon the system in numbers. The writer finds that if a pupil masters the basic idea of the number system, he has a tool for future thinking, which he will need and use throughout all later number activities.

Children should study the number groups. We should keep the following facts in mind as we proceed to the work in grouping: first, primary children cannot see a group of more than four unarranged objects; second, much of their talk concerning groups at which they may be looking, is merely memorized information; third, they can learn to distinguish groups if arranged in domino or other fashion, but, to the extent that they rely upon this special device later, they fail to generalize their number ideas.

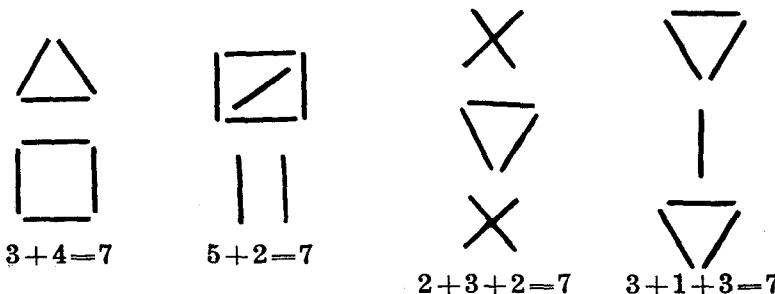
The exercises in grouping should be those that fix the number facts presented in other ways. If one is teaching

8 and 2, it seems very desirable to concentrate attention upon groups such as



and of these, the last-named is probably the most important.

Various groupings of objects (sticks) to give seven may be meaningful if arranged as follows:



One must exercise care in giving seat-work assignments lest supposed exercises in grouping become mere exercises in counting. Children can manipulate intelligently only meaningful groups. There is little value of any sort, and certainly none for grouping practice, in the common habit of building through counting, groups of various sizes. With several small groups consisting of 1, 2, 3, or 4 objects each, children may use them to build other larger groups such as 3 and 3 (6), 4 and 1 (5), 3 and 2 (5), or 2 and 2 (4), without trudging through counting exercises that oppose the very habits of grouping that are desired.

Extension of Vocabulary

(a) Incidental study of simple geometric forms, and occasional use by the teacher of terms describing them, will prepare pupils for later application of number. Pupils appear to be wrestling always with language difficulties in their problem-solving exercises. Many of these language difficulties would be removed by more liberal vocabulary study in earlier grades. At this stage the terms circle, square, cube, line, etc., might be introduced.

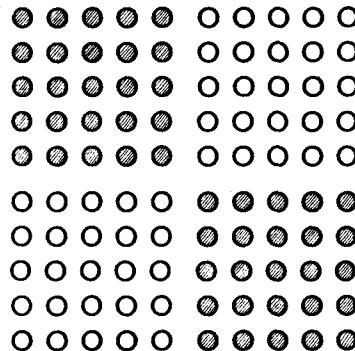
(b) Thought-provoking problems may be given in simple exercises demanding comparison of lengths, sizes and weights.

Counting and Using the Number Chart

Use the number chart to extend counting to 50.

Be certain that the pupils grasp the fact that from 10 at the bottom of the first column, one moves to the be-

ginning of the second column to find eleven. Use the chart without numbers as on the front cover of Primary Number Booklet, Grade I. Much practice will be necessary before



pupils will know the first fifty positions on the chart. They should be able to name any position immediately, or find the chart position corresponding to any number. Days of practice will be necessary to accomplish this.

For intensive practice use the individual booklets and ask pupils to place a marker on the number positions named:

- (a) Using the chart, count by 10's both up and down the scale.
- (b) Using the chart, count by 5's both up and down the scale.
- (c) Practice finding ten more or ten less than a given number. Children learn the place values. Use other devices to guard against mere spatial identification of the place value.

Find 3. Find 10 more than 3.

Find 10. Find 10 more than 10.

Find 10 more than 24.

Find 48. Find 10 less than 48. Find 10 less than 38.

Go back repeatedly to the sequence on the chart to ensure that the exercises are meaningful. Do not allow the work to degenerate into mere formality. Note that the facts are to be deduced from the chart, not memorized. The child can answer "twenty-seven", to "ten less than thirty-seven", only after he finds the position and then names it. We are not asking that he attempt any memorization of number facts above the first decade.

Combinations and Separations

Review Unit 1 in the booklet. In Unit 2 include the following:

- (a) The zero remainders,

0	1	2	3	4	5	6	7	8	9	10
0	1	2	3	4	5	6	7	8	9	10

(b) The remainders obtained when 1 is subtracted from each of the numbers 1 to 10,

$$(d) \begin{array}{r} 3 & 4 & 4 \\ -2 & -2 & -3 \\ \hline & & \end{array}$$

The combinations and separations included here are those of Unit 2 in the booklet. Before giving the pupils drill on the above facts in mixed order, they should be made very familiar with the different ideas by intensive practice upon a single type. The number chart may be used profitably for type (b). In types (a) and (c) the language element is featured. The pupils know the number fact conveyed when they have mastered the language and the one idea illustrated in each type.

PROBLEMS

1. Mother gave me 8 cents, but I lost 1 of them. How many have I left?
2. Six children are going on a picnic. There are sandwiches for 6 of them. How many children will have no sandwiches?
3. Here is a bag with 10 candies in it. If I take 1 of them, how many are left?
4. There were 5 buttons on my coat, but 1 came off. How many buttons are on my coat now?
5. I had 4 cents. I spent 3 of them. How much money have I?
6. I went 6 miles North on a road. Then I turned about and went 6 miles South. How far was I then from where I started?
7. Fill in the blanks:
3 and 1 is _____.
1 less than 4 is _____.
0 from 2 is _____.
5 and 1 is _____.
1 _____. 2 is 1.
1 _____. 5 is 4.
2 _____. 2 is 4.
8. Draw a line 4 inches long. Erase 1 inch of the length. How long is the line that remains?
9. In baseball we say "only three strikes." Bill is at bat. They have called "Strike one." How many more strikes may Bill have?

10. Farmer Brown had 2 geese. A fox took 2 of them. How many geese did the fox leave for the farmer?
11. Mary is 5 years old. How old was she a year ago? How old will she be next year?
12. Use your rulers to find: 2 less than 3; 1 more than 3; 0 less than 2.
13. I sold 3 rabbits. I have 1 left. How many did I have before I sold any?
14. A newsboy had 9 papers. If he sells none of them, how many will he have?
15. I made 1 kite today. How many more must I make if I am to have seven?
16. I have 4 kittens. One is white and the others are black. How many are black?
17. Write 4 words, each having 3 letters.
18. Draw 5 trees in a row. Make 1 of them tall and the others short. How many short trees are there?

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SILENT READING

D. J. Dickie, Ph.D.

READING IN GRADE III

In the third grade the children are concluding the period of the rapid development of skill in the fundamental habits of reading. Of the four fundamental elements of reading: they were taught in Grade I that reading is thought getting; and they were given training in interpreting words, phrases and sentences. In Grade II the recognition of words and phrases was stressed and correct habits of finding out new words were inculcated. In Grade III it remains to bring up to standard the pupils' eye movement habits by assigning them a great deal of easy reading matter.

Grade Purpose

The chief purpose of third grade reading is to complete and to consolidate the work of the first and second years. Teaching the child how to read is the principal business of the primary grades. In the intermediate grades he must begin to use his reading ability for the practical purposes of life. The third grade teacher should therefore hold herself responsible for sending her pupils, equipped, into the reading world. To do this, she should, from time to time, test them carefully in each of the different elements of reading and, by remedial work, correct the faults and weaknesses which she discovers.

Particular Aim

Third grade children should have plenty of silent pleasure reading, plenty of oral reading of the stories and poems which they have enjoyed when reading silently. They should increase their word and phrase vocabulary by much reading and by follow-up work after the formal reading lessons, by "short-exposure" exercises and by reading seat work. In addition the pupils of this grade should begin to do some simple informational or study reading.

Time Allotment and Rate

In the third grade, the pupils should spend at least three-fifths of their time in silent reading; they should read at the rate of 120-150 words per minute.

Formal Lessons: First Step

As in other grades, the silent reading should be of two types: formal and free. In the formal silent reading lesson, the teacher has the class all reading the same selection

under her supervision. She begins with a setting which introduces the selection, rousing the child's interest in the piece, and making any explanations which she feels to be necessary. If there are difficult words in the selection these may be taught as part of the preparation for reading the lesson. A long word drill is likely to dissipate the interest, however, and it is probably wiser, if the pupils can manage the lesson without the drill, to help them individually, as they need the words, noting those which give difficulty to be taught in a word drill lesson later. In a rural school, where the teacher is usually busy with another class while the children are reading, an older pupil may be appointed word monitor to answer the children's hands, and note the words asked about for the teacher.

Second Step: Assigning a Problem Question

The second step in the lesson is the problem question which should be assigned before the children begin to read. A good problem question focuses the pupil's attention upon the main point of the selection and makes it necessary for him to read the passage completely through before he can answer it.

Reading Rate of Individual Pupils

The teacher may then set a time limit for the reading. The average page runs to about 300 words. Multiply this by the number of pages and divide the answer by the number of words which the class should read per minute. With this time limit assigned, pupils who fail to finish in time should be noted and their reading rate and power of comprehension tested to discover, if possible, what is keeping them back.

Necessity of Teacher Supervision

The next step is the reading of the piece by the children. Rural teachers will wish to use the five or ten minutes of reading time with another class, but now and then even the busy rural teacher should watch her pupils read, noting poor posture, evidence of eye-strain, wandering interest, lip movement, and children who follow the lines with their fingers.

Nature of Test Questions

In the formal silent reading lesson, the reading is followed by a written test. From six to ten fact questions, written on the blackboard or dictated to the pupils, should test the intelligence and efficiency of the reading. The questions may be framed in such a way as to require as answer only a single word. They may be cast into any form of objective test. They may be numbered and the pupils required to write only the number of the questions and the answer. There are a variety of ways in which the work

may be arranged so as to take only a very few minutes. The written test is much more valuable than the oral quiz because it requires each child to answer every question, whereas oral questional draws only one answer from each pupil. The others may or may not be prepared to answer. If the lesson is a difficult one, or the class rather weak, or if the facts to be learned are important, the written test may be left till the end of the lesson, following the oral discussion. As a rule the pupils make higher scores in the written test when it follows the oral discussion. On the other hand, having the oral discussion which is, or should be, the most interesting part of the lesson, at the end makes a pleasant ending and leaves an agreeable memory in the minds of the children.

Final Step: The Oral Discussion

The oral discussion is the last step in the formal silent reading lesson. The answer to the problem question should first be taken up and a few other thought questions should be brought up for discussion. The oral discussion questions should focus the pupil's attention on the main points of the selection. They should be such as will evoke expressions of opinion from the children. They should, if possible, touch upon debatable points, starting an argument. The discussion which follows the reading of an interesting selection should be one of the most stimulating moments of the day. It should be neither long nor labored. The merciless questioning upon small details which many teachers conscientiously carry through fixes in memory details rather than main points, and greatly lessens the interest.

As a final point in the oral discussion the class may decide what further use can be made of the selection. It may contain interesting information and may, therefore, be worth re-reading silently. If it is a good story, passages may be assigned, practiced, and read aloud. If there is a conversation, or exciting action, it may lend itself to dramatization or to a dramatic reading. Composition, oral or written, may be based upon it; or it may suggest a useful project combining several subjects.

Free Reading

As in other grades, good Grade III readers should have formal silent reading lessons once a week, and may have the rest of their silent reading time for free reading as described in the article on Grade II reading. It is probably better practice in a rural school to combine the good readers of Grades II and III in one class, while the poor readers of both grades form a second division.

COMPOSITION AND LANGUAGE

A. J. Watson, B.A.

GRADE III

LESSON LXXVI

STORY FOR REPRODUCTION

Billy Bear and Robert Rabbit

Little Billy Bear waddled without worry through the wild woodland where a busy breeze blew briskly through the tall trees. Every now and then it blew a leaf off a tree. Winter was coming, but little Billy Bear had had a good time being awake all summer, and he expected to have another good time being asleep all winter. He liked being a bear, and he liked being Billy Bear better than being any other bear he could think of. Sometimes he wondered in a lazy sort of way how it would feel to be like his friend Robert Rabbit, who had long ears and stayed awake in winter—but he never wanted to be like Robert Rabbit. It seemed, for one thing, so much more satisfactory to waddle through the wild woodland like a bear than to go hippity-hopping like a rabbit. Once Billy Bear had tried to go hippity-hopping, and it was very unsatisfactory. But of course it was all right for Robert Rabbit because that was the way rabbits were brought up and what they were used to.

After he had waddled awhile without worry through the wild woodland Billy Bear came to a fallen tree. It had been fallen so long that nice, soft moss had grown on it.

"Here is where I sit down and have a quiet think," said Billy Bear.

So he sat down comfortably on the soft moss, and had a nice think about how pleasant it was to sit on the soft moss and hear the busy breeze blowing briskly through the tall trees. And who should come hippity-hopping through the wild woodland but Robert Rabbit himself?

"Why, hello! hello!" said Robert Rabbit. "Bless my long ears if it isn't any other than Billy Bear!"

"Hello yourself, Robert Rabbit," said Billy Bear. Who should I be but myself, I ask you politely?"

"Nobody I would rather meet, Billy dear," said Robert Rabbit heartily. "But I have seen many people sitting on that mossy log. Sam Squirrel, Charlie Chipmunk, Beatrice

Bee, and others. It is a favorite seat. I have sat on it myself. Hours at a time. I will sit on it now."

So Robert Rabbit gave a stout hop, and sat on the mossy log beside his friend Billy Bear. Only, after Robert Rabbit had hopped up, Billy Bear sat looking one way and Robert Rabbit sat looking the other.

"Turn yourself round, Billy dear," said Robert Rabbit.

"Turn yourself round yourself, Robert Rabbit," said Billy Bear. "You're smaller than I am."

Robert Rabbit turned himself round, and then Robert Rabbit and Billy Bear sat side by side on the mossy log and both looked the same way.

"Some sunny day next winter, Billy Bear," said Robert Rabbit, "when you are asleep in your hollow tree, I shall be sitting on this mossy log. I shall miss you, but it will be good fun sitting in the sun, Billy Bear."

"I dare say, I dare say, Robert Rabbit," said Billy Bear, "But in real cold weather I'd rather be asleep in my hollow tree and very likely dreaming that we were sitting together on this mossy log. That will be just as good, Robert Rabbit, and much more comfortable."

Oral Questions:

How does a bear walk?

How does a rabbit?

Imitate each.

Name something else that we say "waddles."

Name a bird that goes hippity-hop when looking for worms.

Why did Billy Bear try to go hippity-hop?

How did he get along?

Why did he feel so lazy this fine autumn day?

What pleasure was he looking forward to?

Where did he meet Robert Rabbit?

How many other woodland folk like to sit on this tree?

Why did Robert ask Billy to turn around?

Why didn't Billy do it?

What did they talk about?

Tell all you know about a bear's habits.

Seatwork:

Write a short story telling what Billy Bear looked like; about him getting fat and ready for his winter sleep, and about meeting Robert Rabbit on the mossy log.

LESSON LXXVII

"was"; "were"

Teach the correct use of "was" and "were". Show that "was" is used when speaking of only one, and "were" when

speaking of two or more, but that "were" is also used with "you" whether it means one or more than one.

Write three sentences using "was".

Write three sentences using "were".

Put in the correct word:

1. The boy _____ here yesterday.
2. The books _____ lost a few days ago.
3. There _____ seven girls at the party.
4. _____ you playing at recess?
5. It _____ dark when the children _____ coming home.
6. Where _____ you when your mother _____ calling?
7. We _____ too early for school.
8. Dick and Tom _____ skating on the pond.

LESSON LXXVIII

PICTURE STUDY



Tales of Other Days

Oral discussion:

Name the two children.

Who may the old man be?

What sort of work does he do?

What name do we call such a workman?

What sort of apron has he on and why?

Tell how a blacksmith shoes a horse; and how the shoe
is fastened on.

What are the children coaxing for?

How many stories is the boy asking for?
How do you know?
How many does the girl want?
What sort of story do you think the boy would like him to tell?
What kind would the girl rather hear?

Seatwork:

Tell a story about a horse that you know or have read about.

Tell what his name was, what work he had to do and what some of his habits were.

LESSON LXXIX
CONVERSATION STORY
New Year's Day

Oral discussion:

Tell when it comes, why we keep it. Tell about the watch night service, the ringing of bells, and about your New Year resolutions.

Seatwork:

Tell when New Year's Day comes. Make up one new resolution for yourself to keep and one for your room at school.

LESSON LXXX

Teach abbreviations for: pint, quart, pints, quarts, gallon, ounce, gallons, ounces, pound, pounds.

Seatwork:

Write the abbreviations for: ounces, September, gallon, Saturday, pounds, Mister, doctor, quarts, April, Thursday, pint.

Write words for: Mrs., qt., gals., Tues., lbs., Aug., ozs., ins., Fri.

LESSON LXXXI
STORY FOR REPRODUCTION
How Pal Found a Home

Beth and Bob were lonely. They were twins, six years old, who had just moved to their new home on a farm after a long railroad journey. They missed their playmates Phil and Peggy and Tommy and May just as much as they missed Tippy, the dog, and Skeesix and Toots, their two kittens. They had been promised some fluffy yellow baby chickens in the spring, and a pair of rabbits, too. But spring was months away, and this gloomy Saturday afternoon the twins sadly missed the friends and pets they had left behind. They had been in their new home two weeks, and at first they had been too busy to be lonely. Every

day had been full of adventure, exploring every nook and corner of the farm, for Beth and Bob had never lived on a farm before.

It was the greatest fun to play on the straw stack, to hunt for eggs and to feed chickens, to watch the antics of the spotted calf, to ride on the big black horses when Daddy led them to water. But there were no little boys and girls living close by to play with, and no puppies or kittens to love.

Mother knew something must be done to cheer her little boy and girl that afternoon, so after a moment's thought she exclaimed, "Let's make a wigwam!" Bob's and Beth's faces brightened up in eager interest, for what boy and girl does not love a playhouse, and a wigwam sounded especially alluring.

"The first thing we will need," said Mother, "will be several long poles." Bob remembered seeing splendid ones under some trees Daddy had trimmed and was sent to fetch them. Beth's part was to rip open old gunny sacks Mother brought from the shed. When they were opened Mother and Beth and Bob stretched them over the poles, which had been set up and securely fastened at the top, tepee fashion. The sacks were then tied at the bottom to short pegs driven in the ground.

When the wigwam was finished, Bob put on his Indian play suit, took his bow and arrow, and went out for a hunt. Mother helped Beth make Indian clothes for her doll out of scraps of khaki, fringed at the bottom and decorated with beads. It was a wonderful afternoon, and though the gloomy day grew cold and bleak, and a sharp wind came up, the little wigwam was quite snug and cozy.

That night, after the twins were tucked in their beds, they could hear the wind lashing itself against the house and Mother told them that the snow had begun to fall.

In the morning it was a still, white world that Beth and Bob looked out upon. The wind had gone down, but ground and fences and trees were laden with the season's first snow. Bob slipped out to see how the wigwam had fared, and a moment later he was back in the kitchen with eyes like stars, and something black and furry in his arms.

"Mother! Dad! Here's a little lost puppy I found in our wigwam," he cried. Beth gazed lovingly at the shivering, hungry-looking little creature, and said, "Wasn't it lovely that we had a wigwam all ready for him?"

Mother hurriedly warmed milk for the little waif, and soon he was warm and fed and grateful, and a waif no longer, for Daddy promised the eager children they might keep the puppy if no one claimed him. And that is how a homeless little dog, who later was known as Pal, came to live with Beth and Bob.

Oral questions:

Why were Beth and Bob lonely?
 Who had their playmates been?
 What pets did they have?
 Why had they to leave them?
 What had their mother promised them for the spring time?
 What new fun did they have on the farm?
 What is a wigwam?
 How do the Indians make it?
 How did Beth and Bob and their mother make it?
 What kind of weather did they have that afternoon and that night?
 In the morning why did Bob hurry out to the wigwam?
 What did he find?
 What might have happened to Pal if he hadn't found the wigwam?

Seatwork:

Tell how to make a wigwam.
 Tell about getting the poles and the covering.
 Tell about having supper in the wigwam with your friends and about the fun you had.

LESSON LXXXII**"right"; "write"**

Learn the two meanings of "right", namely, "right" as opposite of "left", and "right" as opposite of "wrong".

Learn the meaning and spelling of each.

Put in the correct word:

1. Hold the pencil in your _____ hand when you _____.
2. Go to the _____ side of the room if you have your work _____.
3. I _____ my words _____.
4. Mary can _____ her spelling _____.
5. _____ me a note on the _____ side of the paper.
6. Tom will teach him the _____ way to _____.
7. _____ this word on the _____ page.
8. My _____ side hurts when I _____ too long.

LESSON LXXXIII**PICTURE STUDY****Oral discussion:**

What time of year is this?
 How many children are getting a ride?
 Who is the driver?
 What kind of dog have they hitched up?
 Do you think he will do as he is told?



Are the children helping to draw in the hay or is it just to make a soft seat for them?
 What makes it easy for the dog to draw this heavy load?
 What else do you see in the picture?
 How do you know the sun is shining?
 Tell anything else that St. Bernard dogs are used for.

Seatwork:

Tell how the wagon was built and where they got each of the parts.
 Tell how the dog is harnessed and how he can draw such a big load.

LESSON LXXXIV
CONVERSATION STORY

Indian Children

Oral discussion:

Talk about their color, their dress, their occupation, their games in summer or winter, their homes and surroundings.

Seatwork:

Write a short story about Indian boys or girls telling what they look like, how they dress, and what they learn to do.

LESSON LXXXV

Rewrite the following group of words filling in the blank with the word that usually goes with the first word:

night and _____	mother and _____
pen and _____	son and _____
needle and _____	brother and _____
girl and _____	cream and _____
king and _____	salt and _____
knife and _____	boots and _____

LESSON LXXXVI
STORY FOR REPRODUCTION
Smiling Playground

Daddy had been spending every evening working on the playground back of the new house. The children had helped too—Billy carried nails and Bobby held the hammer, while Jean and Judy, the two older sisters, helped to carry the boards. Daddy said it was really surprising what a lot of help the two girls, and a pair of four-year-old twins could be when they were interested. At last it was completed, and the children for blocks around agreed that it was wonderful. Daddy had made swings and a slide and a teeter-totter, a trapeze, and the dearest little play-house for which the girls planned to make rag rugs and curtains, and Daddy said that later he would have time to build some furniture for it.

“Now, children,”—Mother had come out to see and admire—“you surely should be happy with a playground like this, and the only thing I ask is that you don’t quarrel over any of the things.”

“Of, of course not,” agreed all four at once, and then Jean, the eldest, suddenly gave a jump and a squeal. “Mother, I’ve got an idea—let’s give it a name—oh, let’s call it “Smiling Playground.”

“Why, that’s lovely,” agreed Mother, “you’ll all want to do as it says.”

So Daddy made a sign with nice lettering that said “Smiling Playground” on it—and then Jean had another idea.

“Now, Daddy, please make one of those faces such as you did for me once that is all smiling one way, and it is all cross and frowning if you turn it upside down.” So Daddy made the face as Jean directed, and it was nailed above the sign.

“Oh, isn’t he funny?” laughed Billy and Bobby.

For several days the children played for hours at a time on the swings, teeter and slide, and when a little tired the girls brought out the rag bags. All would tear rags for the rugs which they were to make for the playhouse. Mother, busy with rugs and furnishing for her own new house, smiled to herself as she looked out now and then at the happy group. Then suddenly Mother heard loud angry words, and as she went to the door Billy and Judy were pulling and jerking on one end of a long piece of cloth, while Jean and Bobby at the other end were pulling equally hard, and each of the four declaring loudly it was his or her own.

“Oh, children,” Mother said quickly. “Come here at once—now each of you go to your own rooms and stay till I call you.” Then Mother slipped out and turned around

the face that Daddy had made so that instead of a funny laughing face it was all frowns and ugly, cross lines. Then she took down the "Smiling Playground" sign, and after putting it away, called the children outside.

"I want you to see what your quarrelling did to the lovely playground Daddy made for you children," was all she said. Judy pointed to the face on the sign. "Mother, he isn't nice now!"

"Oh, no, he's ugly," said Billy and Bobby. "And our sign that said 'Smiling Playground' is gone," broke in Jean, excitedly.

"Well, we couldn't have that sign over your heads when you were quarrelling, could we? And the funny little face just went away and hid, and one came instead who looks as you children did," said Mother.

"Mother, we'll never quarrel in 'Smiling Playground' again if we can have the funny laughing face out, and the sign back again," they all promised earnestly. "We don't like to play with this face looking down at us."

So the happy face and the sign were restored, and all through the summer if Billy or Bobby or Jean or Judy would sometimes forget and be a bit cross, one of the others would quickly point to the funny laughing face, and all would be happy again.

Oral discussion:

Who helped to build the playhouse?

What else did Daddy build?

How did the twins help?

How did the girls furnish the playhouse?

What was on the sign?

Who chose this name and why?

What funny face did Daddy make and nail over the sign?

Why did he draw it so that it would frown if turned upside down?

What happened the day the children quarrelled?

Why did the new face spoil the playground?

What promise did the children make to get the Smiling Face back again?

Did they keep their promise?

Seatwork:

Draw a face in such a way that it smiles, but if turned upside down it frowns.

— OR —

Write a short story about your own playhouse. Tell how you built it, what you have in it and how you entertain your friends.

LESSON LXXXVII

"weigh"; "way"

Learn the correct meaning and spelling of each.
Fill in the blanks correctly:

1. Show me the _____ to _____ the elephant.
2. This is the _____ to _____ yourself.
3. _____ a pound of butter this _____.
4. Which _____ shall I _____ the flour?
5. Come this _____ to _____ the potatoes.
6. The right _____ is the _____ to do it.
7. Agnes will _____ herself on the _____ home.
8. Get out of the _____ till I _____ myself.

LESSON LXXXVIII

PICTURE STUDY

Feeding the Deer

**Oral discussion:**

These deer are in a park in London, England, and are quite tame.

How are they different from the deer in Alberta?

How many do you see in the picture?

What do you think the little girl has in her hand?

Why is the other little girl not helping?

What would happen if the deer do not get what is offered?

Where do we have deer in Alberta that are quite tame?

Why are they not as tame as these?

What are some of the enemies of our deer?

Why should we try to protect them?

What are deer useful for in some other countries?

What are their horns called?

What happens to them each year?

Seatwork:

Write a story about a deer you have seen in one of our parks.

Tell about where it lives, and what it eats.

Tell about trying to get a snapshot to take home.

LESSON LXXXIX**CONVERSATION STORY****A Coasting Party****Oral discussion:**

Talk about the kind of sleds you use, whether sleighs or toboggans. Tell where you go and with whom. Tell what happens sometimes when you get to the bottom of the hill. Talk about the best kind of weather for coasting.

Seatwork:

Write a story telling what happened one day you went coasting.

LESSON XC

Teach the plurals of words as:

church—churches	goose—geese
box—boxes	mouse—mice
fox—foxes	knife—knives
house—houses	leaf—leaves
line—lines	scissors—scissors
deer—deer	ruler—rulers

LESSON XCI**A Letter From Buster****Dear Grade III—**

My name is Buster. Sometimes they call me "Big Boy", but I'm not a dog as you might expect from that name. No, Sir, I'd rather be a cat any day because I can climb a fence and explore places where no dog could ever go. I can sit up in a tree and enjoy the cool summer breezes instead of having to lie under the verandah and pant from the heat. I got my name, Buster, because I am bigger than the ordinary cat and my hair is almost as long as a Persian's. Besides, I am boss of all the other cats around here, and even the dogs know better than to bother me too much.

Sometimes I play with the pup, Snubs. We often pretend we are real angry and start to cuff each other, but it is only in fun. Snubs says that a farm is the only place for a pup. I think it is the only place for a cat too, because I live on a farm, and I know you would agree with me if you could just spend a day up here. My master owns a number of cows, so we get plenty of milk, and my mistress is very good to all her animal family, which includes several cats,

a dog, two horses, a pig, chickens and the cows. What a happy time we all have!

Sheppie (that's the big dog's name) and I are the best of friends. His daily work is to fetch the cows out of the pasture at milking time and then see that they get back into the fields all right. He is a very good-natured and intelligent dog and makes friends with all the people who visit here.

These city folk are very kind to me, too, and they seem astonished to learn that I like cantaloupe. Indeed, I like it so well, that it's hard for me to keep away from the dining room when I know it is being served. Whenever I get a titbit, I generally have to perform my pet stunt of shaking hands. This seems to surprise people a great deal, so I suppose cats haven't been taught to do this much.

I wish I could send you my picture, but you will have to take my word for it that I am really a very fine looking cat. At least that's what everybody says.

Yours with best wishes,
BUSTER.

Oral discussion:

Who wrote the letter and where does he live?

Why is he called Buster?

Why would he rather be a cat than a dog?

Give any other reasons you can think of.

Who are his best friends?

What other animals are on this farm?

How are they all used?

What job has Sheppie to do every day?

What sort of dog is he?

What does Buster like to eat when he gets a chance?

What does he usually have for his meals?

Why do you think he is proud of himself?

Seatwork:

Write a short story about your own cat. Tell how you take care of it, what you feed it and what it likes best to do.

LESSON XCII

Review of Difficult Words

Write sentences using each pair of words in the same sentence:

their, there
to, too
two, too
son, sun

way, weigh
write, right
here, hear
a, an

LESSON XCIII
PICTURE STUDY
A Queer Pet



Oral discussion:

This boy has been to the "Zoo" where they keep all kinds of wild animals.
 What baby animal has the little boy in his arms?
 What would its papa and mamma do to the little boy if they got hold of him?
 How large are the grown up alligators?
 Where do they live and what do they eat?
 Why are they so dangerous to people or animals that walk on the river bank where they are?
 How do men often kill them and what is their hide used for?
 What other animal does this young one look very much like?

Seatwork:

Write "Alligator" at least six times.
 Write three or four sentences telling what an alligator looks like, where it lives and what some of its bad habits are.

LESSON XCIV
CONVERSATION STORY
Chinese Children

Oral discussion:

Talk about the country they live in, their homes, their dress, their food, their games, and the things we get from

China. Get pictures of Chinese children in their best clothes.

Seatwork:

Pretend you are a little Chinese girl or boy. Tell us three things about yourself and your country.

LESSON XCV

A complete sentence that starts with a capital and ends with a period or question mark is always a **complete statement** about something. Listen to the **sound** of each of the following groups and write down only those that are **complete statements**.

1. Many a day when we are at home
2. If you don't give me my pencil
3. Here are three questions for us to do.
4. Mother said she would get me a new sleigh.
5. Whenever it is not raining outside
6. Because I don't want to go
7. In the morning after I have my breakfast
8. My dog can do lots of tricks.
9. There goes the bell for recess.
10. Out on the playground we have lots of fun.

Complete those that are not complete.

LITERATURE SUGGESTIONS FOR JANUARY

The Reader, pages 114-135.

Special Literature—The Madonna of the Chair.

Pippa.

Memory—The Iroquois Lullaby.

Stories—Reynard the Fox.

Dramatization—The Wedding of Allan-a-Dale.

— A —

The Madonna of the Chair

1. When did Raphael live?
2. Where did he live?
3. Tell about two things he did when he was a very young boy.
4. Where did Raphael paint his pictures?
5. Who were the hermit's two friends?
6. How did they help Raphael to paint his picture?
7. Who were the woman and her children supposed to represent?
8. Where is the picture now?
9. Why can the picture not be bought?
10. Why do we still remember Raphael?

— B —

A Japanese Home

1. Describe the inside of a Japanese home.
2. Tell how it is different from our homes.

— C —

1. Where did Pippa live?
2. Where did she work?
3. What did she do in the mill?
4. Name the people she helped on her holiday.
5. How did she help them?
6. What lesson does Pippa teach us?
7. Tell one thing you learned about Italy from this story.

— D —

Write a short story in your own words telling about the flowers waking up in the spring.

Primary Number Booklets

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School of Education, University of Alberta

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GRADE IV

JANUARY OUTLINE

Addition Review

(a) As in:

837	721	5375	3624
625	345	2992	9715
498	678	4861	2367
379	945	5739	8945
564	763	2886	2468
437	428	7935	5179
928	174	8227	4444

(b) Uneven columns:

267	387	6247	463
3594	9	5	29
76	36	398	457
4596	4782	76	3826
387	59	4518	41
78	366	7	527
499	5009	863	8367

(c)	\$16.80	\$ 5.93	\$.37
	3.78	.66	15.25
	.19	.08	7.86
	4.55	24.35	.45
	.84	6.27	3.09
	27.69	.95	44.05

(d) Give practice in writing from dictation examples such as those in (c) involving dollars and cents. Pupils receive practice in the use of the decimal point and in the addition of uneven columns.

Vocabulary

- (a) Dictate for spelling terms such as: plus, divide, add, product, fraction, money, remainder.
- (b) Ask pupils to give and solve an example illustrating each of these terms, e.g., $9 \times 7 = 63$. 63 is the product.
- (c) For variety one may use completion exercises, multiple-choice tests, etc., to test comprehension of these terms.

(d) Children learn the meanings of these terms by using them

$$\begin{array}{r} 7)446 \\ \hline 63 \end{array}$$
 5/7

When discussing methods of checking do not accept such statements as "Multiply 63 by 7 and add 5." Demand greater precision and clearness of thought as illustrated in "Multiply the quotient 63 by the divisor 7. Add the remainder 5. This should give the dividend."

Long Division

(a) In accepted practice, long explanations of procedure are no longer given. Pupils learn correct procedure through practice. Certain pupils will be fortunate enough to have some realization of the fact that in $16)32598$ (we are dividing thirty-two thousand by sixteen and that the quotient will be two thousand. There is no objection to throwing in such statements, but we do not try to rationalize the process of division.

(b) In beginning long division it is desirable to use simple examples and give plenty of practice to establish the fundamental habits before hurrying on to more difficult examples.

$$\begin{array}{r}
 21 \qquad \text{Say, "65 divided by 31 is 2."} \\
 31)651 \qquad \text{Write the 2 over the 5.} \\
 62 \qquad \text{"31 multiplied by 2 is 62."} \\
 \hline
 31 \qquad \text{Write 62 under the 65. Subtract.} \\
 31 \qquad \text{Place the "1" to the right of the 3.} \\
 31 \qquad \text{"31 divided by 31 is 1."} \\
 \hline
 \end{array}$$

The remainder is 0.

Check: Multiply the quotient and divisor (31×21) and add the remainder 0.

Type 1—

Give about a week's practice on this first type. Note that there is no remainder, and that the correct quotient figure is obtained when the first figure of the divisor is used as a trial divisor.

$$\begin{array}{r}
 27)594(\qquad 21)672(\qquad 53)795(\qquad 24)984(\\
 46)736(\qquad 44)968(\qquad 53)848(\qquad 43)688(\\
 42)714(\qquad 41)574(\qquad 46)966(\qquad 45)990(\\
 47)987(\qquad 47)752(\qquad 48)672(\qquad 31)775(\\
 32)992(\qquad 33)825(\qquad 34)782(\qquad 36)576(\\
 \end{array}$$

Type 2—

As a second type take examples where the first figure may be used as the trial divisor, but in example where there will be a remainder.

$$\begin{array}{r}
 57)939(\qquad 63)888(\qquad 54)881(\qquad 53)781(\\
 52)605(\qquad 51)691(\qquad 23)569(\qquad 24)787(\\
 27)533(\qquad 28)598(\qquad 44)937(\qquad 41)699(\\
 \end{array}$$

Type 3—

The trial divisor is one more than the first figure of the divisor, and this gives the correct quotient figure.

$$\begin{array}{r} 39)897(\\ 38)922(\\ 29)944(\end{array} \quad \begin{array}{r} 38)608(\\ 37)999(\\ 39)897(\end{array} \quad \begin{array}{r} 37)629(\\ 28)650(\\ 37)629(\end{array} \quad \begin{array}{r} 36)907(\\ 26)780(\\ 36)907(\end{array}$$

If the second figure of the divisor is 7, 8 or 9, the true quotient will be obtained most often by taking one more than the first figure of the divisor as the trial divisor.

Type 4 —

The first figure of the divisor is used as the trial divisor, but the true quotient is one less than the trial quotient.

$$\begin{array}{r} 43)292(\\ 67)548(\end{array} \quad \begin{array}{r} 72)641(\\ 42)320(\end{array} \quad \begin{array}{r} 32)282(\\ 42)320(\end{array} \quad \begin{array}{r} 53)403(\\ 42)320(\end{array}$$

Type 5—

A combination of types 1, 2, 3 and 4 extended to larger dividends:

- Type 1 extended to 27)5946(
- Type 2 extended to 57)9390(
- Type 3 extended to 39)8971(
- Type 4 extended to 43)2924(

One should be certain that the pupils are able to answer the following questions:

1. What does division mean?
2. How do you check your work in long division? Each and every question should be checked.
3. By what means do we refer to each of the different numbers in a division example?

Unit Fractions and Division

The idea of division is included in $1/2$, $1/3$, $1/4$, etc., when one thinks thus, "How many are in each group when _____ is divided into two equal parts?" or, "How much will be in each portions when _____ is divided into three equal parts?"

To find $1/2$ of 324 divide 324 by 2.

This basic notion will be understood most readily by applying the idea to denominative numbers and magnitudes.

Find $1/3$ of this given line. (Line 6 inches in length.) The derivation of the 2 inches is gradually associated with finding the quotient 2 in $3)6$.

Examples:

- $1/3$ of 12 inches = _____. $1/2$ of 1248 = _____.
 $1/4$ gallon = _____. quarts. $1/2$ of 2400 = _____.
 $1/4$ gallon = _____. pints. $1/2$ of 2496 = _____.
 $1/2$ foot = _____. inches. $1/3$ of 2496 = _____.
 $1/2$ yard = _____. feet. $1/4$ of 4840 = _____.

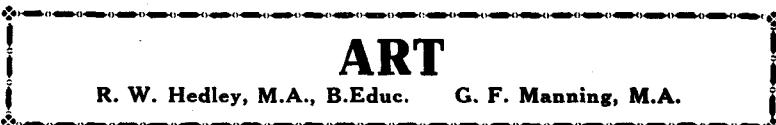
$$\begin{array}{ll}
 \frac{1}{2} \text{ of } 12 = \dots & \frac{1}{4} \text{ of } 4364 = \dots \\
 \frac{1}{2} \text{ of } 120 = \dots & \frac{1}{6} \text{ of } 3822 = \dots \\
 \frac{1}{2} \text{ of } 124 = \dots & \frac{1}{8} \text{ of } 2448 = \dots \\
 \frac{1}{2} \text{ of } 1240 = \dots &
 \end{array}$$

Fractions

$$\begin{array}{cccc}
 \frac{1}{2} ? & \frac{1}{2} ? & \frac{1}{2} ? & \frac{1}{2} ? \\
 \frac{1}{2} \frac{4}{4} & \frac{1}{2} \frac{6}{6} & \frac{1}{2} \frac{8}{8} & \frac{1}{2} \frac{10}{10} \\
 \frac{1}{3} ? & \frac{1}{3} ? & \frac{1}{3} ? & \frac{1}{3} ? \\
 \frac{1}{3} \frac{6}{6} & \frac{1}{3} \frac{9}{9} & \frac{1}{3} \frac{12}{12} & \frac{1}{3} \frac{8}{8}
 \end{array}$$

PROBLEMS

- How could you find the cost of 10000 cubic feet of gas if you knew the cost of 1000 cubic feet?
- Find the cost of $\frac{1}{2}$ yd. of lead pipe at 2 cents per inch.
- Read this problem: If 15 books cost \$22.00, how much will 18 books cost?
Is the cost more or less than \$22.00? How many books are in the lot for which you know the value? Will the required cost be more or less than \$44.00?
- Find the cost of 16 firecrackers at 8 cents each. Is this a problem in subtraction, in multiplication, or in division?
- If pineapples are worth 15 cents each, how much are 2 dozen each?
- Which will cost more, 16 bushels of potatoes at \$1.25 a bushel, or 15 bushels at \$1.50 a bushel?
- A lady buys 5 yards of one kind of cloth at 40 cents a yard, and another piece at 50 cents a yard. What else must you know before you can find how much the lady paid for both pieces of cloth?
- There are 24 boxes of berries in a crate that costs \$3.60. How much do the berries cost per box?
- If you know the length of each of two roads, how do you find how much the one is longer than the other?
- Anti-freeze for a car costs \$4.50 a gallon. About how much is this for a half gallon? For a quart? For a pint?
- The boys are running a race. They will run 100 yards. How many feet is this? If Bill runs the 100 yards in 12 seconds, about how many feet does he go in 1 second?
- In $52 \times 48 = 2496$, the is 2496.
- In $300 - 125 = 175$, the 175 is called the .
- Here is a picture of the boys and girls of our school. In the picture Tom is only 1 inch long. Tom is really 4 feet tall. Fred is $1\frac{1}{4}$ inches long in the picture. How tall is Fred?
- Draw a line 1 inch long to represent a road 2 miles in length. Draw another line to represent a road 6 miles in length.



ART

R. W. Hedley, M.A., B.Educ. G. F. Manning, M.A.

GRADE V

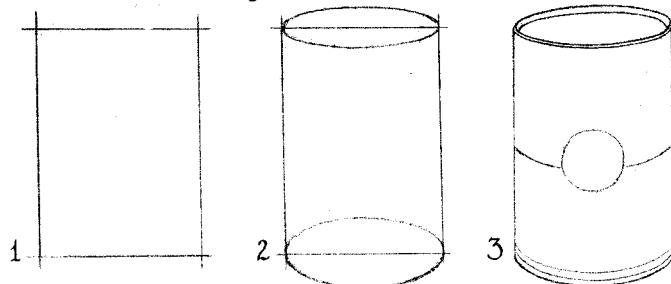
The work for this month is the drawing of cylindrical and hemispherical objects singly, and in groups; the finishing of these in pencil values—light and shade.

Teachers are referred to "Elementary Art", Book 3 (Grades 5 and 6) for other suggestions dealing with the work in perspective drawing. Exercises 5 and 10 cover this same topic, and should be consulted. "The Alberta School" magazine for January, 1929, page 12, shows two useful devices for use in teaching the drawing of the ellipse. Fig. 2 on this plate shows a device easily made, which is useful for teaching the drawing of the foreshortened circle.

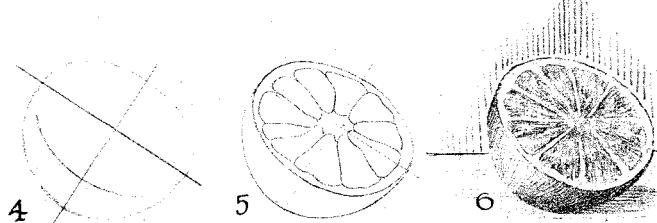
In choosing models for drawing this month the choice should fall on common objects, easily obtained and familiar to the children. If this is done it is often possible to supply each pupil with an object of his own to draw—he can supply this himself, if given notice ahead. Such things as tins of canned fruit, cups and saucers, tumblers, the half of an orange or apple, etc., make excellent models. A board, placed across the aisle, and resting on the desks on either side, will support the object, or group of objects, quite well, and the thing to be drawn is near enough to be clearly seen by the pupil. A small object placed before the class is often a very unsatisfactory model, as children may be nearsighted, or may be unable to distinguish the details with sufficient clearness to represent them accurately. An object which can be clearly seen is a first requisite in lessons of this type.

The drawing of a group of objects is the work for four weeks. It is obvious that a group could be completed in one lesson. The intention of the course is to provide, during the month of January, frequent opportunities for practising the drawing of the cylinder, the hemisphere, and of objects based on these. The most difficult part of this work is the rendering of the foreshortened circle—the ellipse. If children are allowed only to put in major and minor axes, and to draw the ellipse around these, the work is likely to be stiff and stilted. As with writing, free practice—and lots of it—swinging with the arm around freely, and going over and over the ellipse, will result in a greater feeling of confidence than drawing around the axes. (This latter method may also be used, of course.) For work of this kind the device shown in Exercise III, Grade III of "Elementary Art" is most useful, as the pupil has before him the actual shape

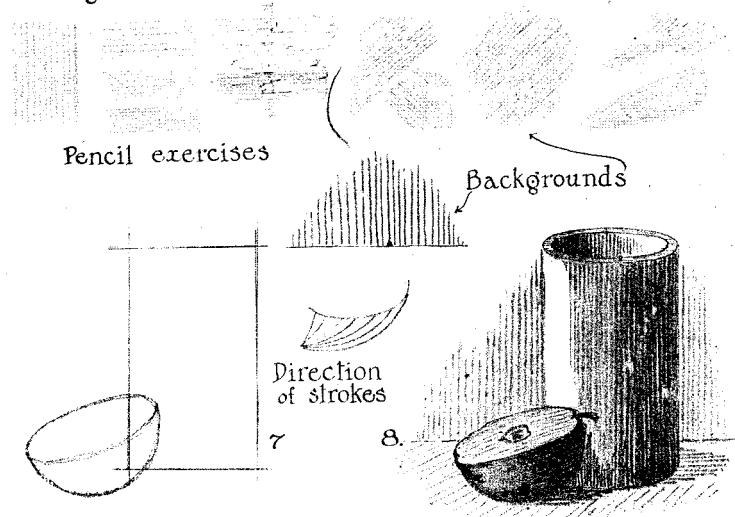
The drawing of cylindrical objects.



Step 1 - draw a rectangle of the right proportions.
 Step 2 - draw ellipses - top and bottom. Step 3 - finish.



Figs. 4, 5 and 6 show drawings of the half of an orange. Get the directions of the axes - then finish.



Planning, drawing and shading a group.

of the foreshortened circle—the circle—and this circle as it appears when turned at an angle to the line of vision. Such a device may be easily constructed by the pupil himself.

Practice should also be given—and frequently—in blocking in the shapes, roughly but **accurately**, as shown in Figs. 1 and 4 and 7 on the accompanying plate of drawings. Teach pupils to check these rough drawings (made on wrapping paper or any other of suitable surface) to see that the proportions are correct. The satisfactory placing of a group on a page can be worked out in the same manner, and this type of exercise will provide useful seatwork easily supervised.

Practice will also be given at frequent intervals in pencil shading. The "direct" method is recommended, building up textures by means of strokes placed close together. Here again, frequent exercise will build up confidence and skill. Discourage the use of erasers. It is better to practice putting strokes together in various ways than to spend time in erasing mistakes. The methods of sharpening the pencil and of handling it are fully illustrated in "Elementary Art", Grades 5 and 6.

The drawings on the accompanying plate illustrate the methods advocated above. Nos. 1, 2 and 3 show three steps in drawing a tin containing fruit. It will be observed that the ellipse at the bottom has been fully drawn. It is unsafe to be satisfied with drawing the front half of an ellipse. Some care will be necessary in showing pupils how to make the tangential join where perpendicular meets ellipse.

Figs. 4, 5 and 6 show how to draw and complete a half orange. Do not be too definite in outlining the shapes of the orange sections within the ellipse, and avoid **outlining** these.

Below these figures are some exercises with the pencil. Frequent practice will enable pupils to suggest various textures by varying the direction of strokes, their distance apart, the heaviness or otherwise of the stroke, etc. This practice work is best done on drawing paper. Draw firmly, pressing evenly for each pencil stroke, and do not erase, are good rules to teach. In drawing the boards (on the upright post) three pencils were used—a very hard one for the top board, a medium hard one for the middle board, and a soft one for the bottom board. The pressure on the pencil while making all three did not vary. The differences in value are due to differences in the hardness of the pencils.

In Figs. 7 and 8 a simple group is blocked-in and then finished. A background has been added in this case.

GEOGRAPHY

J. M. Roxburgh, M.A.

GRADE VI

THE STATES OF CENTRAL AND SOUTH-WESTERN EUROPE

General Study.—Trace an outline map of Europe, and outline the countries in this group in heavy lines. These are Austria, Czecho-Slovakia, Hungary, Roumania, Albania, Bulgaria, Yugoslavia, and Turkey.

Mark the Elbe River on which is Prague, and the Danube on which are Vienna, Budapest, Belgrade.

Mark in the Adriatic Sea, the Strait of Otranto, and the Black Sea.

Note that the largest of these countries, Roumania, is about half the size of Manitoba.

People and History.—The boundaries of these states were fixed by the allies after the Great War. Owing to the fact that almost all the wars of recent times have had their origin in the racial hatreds of the various people of this region, it was considered wise to group people of one race, or people who desired to be united, in one state. This has not been completely accomplished because in many communities there are minorities of a different race from the majority.

Why is this region divided into a number of small states? One reason is the broken and mountainous nature of the country. Added to this is the fact that it has been the meeting point of widely different races—the Latins (Roumania), the Turks (Turkey), the Huns (Hungary), various branches of the Slavonic race (Russia, Bulgaria, Jugo Slavia, Czecho-Slovakia), and the Germans, Austria. The origin of the Albanian race is a complete mystery, but the people are plainly of a different race from any of their neighbors.

Industries.—In the Plains of Hungary, wheat, oats, barley, and rye, are grown under conditions much similar to those in our own province. Farming in this area is illustrated in the text on pages 166-167. Also page 126.

Roumania produces a great deal of wheat, and also corn and barley. In Bulgaria, Jugoslavia, Turkey, Albania, cattle, sheep, horses and goats are kept. Olives and grapes are grown, and in some places silk is produced from the cocoon of a worm which feeds on the mulberry tree. Czecho-Slovakia and Austria have, in addition to agriculture, a large manufacturing industry. Electric power from the mountain streams is used in the industries. Timber is provided from the forested mountain-sides. Manufactures of Czecho-

Slovakia are china, porcelain, and the famous Bohemian glass, also beads, flour, furniture, beer, sugar. In Austria are produced textiles, musical and surgical instruments.

Cities.—Vienna, on the Danube, capital of Austria, centre of educational and scientific life, is probably declining in influence since the break-up of the Austrian Empire following the Great War. Budapest—capital of Hungary, has important interests connected with agriculture in the fertile Hungarian Plain, such as shipping of grain on the Danube, manufacture of flour, manufactures of textiles. Belgrade—capital of Jugoslavia, on the Danube. Bucharest—capital of Roumania, connected with the Black Sea by rail. Constantinople—a Turkish city on the Bosphorus, port of call for ships. Fiume—an Italian city on the Adriatic, and a free port for Hungarian trade.

QUESTIONS AND EXERCISES

1. Complete the map of the region included in the lesson. Show the two rivers, the cities, the surrounding countries, the seas bordering, etc.
2. Account for the number of small countries in this area.
3. Give your impressions of agriculture among these people, judging from the illustrations in the text. Account for this, and compare with our conditions.
4. Which of these nations are (1) Slavs, (2) Latins, (3) Turks, (4) German, (5) unknown origin.
5. Which of these are most largely (1) agricultural, (2) pastoral, (3) manufacturing, (4) devoted to growing of grapes, olives.
6. Account for these climatically or otherwise: (1) electrical development in Czecho-Slovakia, (2) flour milling in Budapest, (3) important location of Vienna (see text, page 167), (4) production of pulp from Czecho-Slovakia, (5) production of roses in Bulgaria.
7. Locate and give the importance of Vienna, Prague, Trieste, Budapest, Belgrade, Constantinople, Fiume.

The States of Southern Europe

These are Spain, Portugal, Italy, Greece. All are peninsulas partly surrounded by the Mediterranean. They are grouped together because they are alike in climate and products. The climate of these countries is said to be of the Mediterranean type, that is, there is a rain in winter, and clear dry days in summer. It resembles southern California, South Africa, and central Chile, northern Africa, and southern Australia.

Products are grapes, oranges, raisins, currants, olives, lemons, figs, rice. The farms produce wheat, barley, horses, cattle, goats and sheep.

Spain and Portugal

Surface—A plateau crossed by mountain ranges run-

ning east and west. The Pyrenees are a high range, forming the boundary with France.

Minerals—Copper, iron ore, silver, quicksilver, lead.

Cities—These are on the coast, except Madrid. Madrid is the capital of Spain. Libson is the capital of Portugal. It is at the mouth of the Tagus.

Italy

Surface and Coast Features—The Appenine range runs the whole length of the peninsula. Near Naples is the active volcano Mt. Vesuvius. In Sicily is another volcano, Mt. Aetna. At the north the Po River has formed flood-plain, and is building up a delta on the coast of the Adriatic. Two islands form part of Italy, Sicily, and Sardinia.

Industries—Agriculture is the chief occupation of the people. There is scarcely ever frost or snow in the lowlands. The summers are dry, but the winters are rainy, especially in the south. Much of the coastal land is low-lying, and subject to malaria. The products are typical of a Mediterranean climate—wheat, barley, rice, olives, oranges, lemons, mulberry trees for the silk worm, grapes. Sheep and goats are raised on the higher ridges. Macaroni is a favorite food of the people along with fish.

Manufactures include hats, both felt and straw, macaroni, silk wine. Canada's trade with Italy is considerable in wheat, paper, metals, fish.

Cities—Rome is the capital on the Tiber River on the west coast. Venice is a sea-port on the northern part of the Adriatic. It is built on islands and many of the streets are water (see page 173). Genoa on the north-west coast is a seaport, near the health resort known as the Riviera.

Florence is noted for its art galleries. It is the birth-place of many great artists of the middle ages, among them Cimabue, Giotto, Era Angelico, Massaccio, Botticelli, Leonardi da Vinci, but chief of all, Raphael, and Michael Angelo.

Milan is situated on the Po River in the Lombardy Plain. It has a beautiful cathedral, and is famous for its manufactures of silk and cotton.

Trieste has been Italian since the Great War. It is a seaport on the Adriatic about fifty miles east of Venice. Its trade is with the eastern Mediterranean countries chiefly.

Fiume was also a possession of Austria before the Great War, and is now Italian. It is a free port for the Hungarian trade by arrangement in a special treaty between the two countries.

Greece.—The surface is mountainous. There are deep indentations in the coast. These facts, together with the climate which favors outdoor activity has had an effect on the people. Near Athens there are the ruins of the splendid temples built over three thousand years ago. The modern

Greeks are indolent and unprogressive. The Greeks have a great shipping trade, and Greek sailors are seen in many American as well as European ports. Products of the country are currants (a species of seedless grape grown near Corinth), sponges, olives, grapes, figs, lemons, silk, cotton.

Switzerland

Surface—The Alps mountains cover most of the country. The highest peak is Mont Blanc. There are three beautiful mountain lakes—Geneva, Lucerne, and Constance. For the use of railways the mountains are tunneled.

Size—About one-fifteenth the size of Manitoba.

Population—Four millions.

Industries—Agriculture is carried on in the valleys. Dairy products such as cheese, butter, and milk chocolate are exported. For home use wheat, oats, and barley are grown, as well as hay and potatoes. In the cities industries flourish owing to the cheap electrical power from the mountain streams. Watches, lace, silk, are exported.

Cities—Bern, the capital, Zurich, Geneva. The latter is the meeting place of the League of Nations.

Life in Switzerland—There is no Swiss race, properly speaking. That part of the country bordering on Germany speaks German, those bordering on France are French, and those on the southern districts are Italian. Part of the population is Catholic, and part Protestant. Nevertheless there is a strong national spirit, and Switzerland is a country which has never been permanently conquered by any nation. The government is a republic, and careful provision is made for schools, roads, and the welfare of all the people.

Much money comes into the country from the tourist trade. Foreigners from all the principal countries of the world wish to see the Alps, climb some of the high mountains, and engage in the sports of both summer and winter.

In the cities of Basel and Zurich, lace and silk, which are sold in our stores, is made by the use of electrically driven machinery, the power being supplied by mountain streams. Watches and clocks are made in Geneva.

The farm people live in villages, going out to work their farms each day. Here they raise hay, oats, potatoes, barley and wheat. The stock are wintered in the valleys. As the spring approaches, the flocks, consisting of dairy cattle, sheep, and goats, are taken to the higher grounds by the boys and the aged people, while the others remain to work the farms. It is an interesting life for the boys. They follow the retreating snow line up the mountain side with the herds, milk the dairy animals, both cows and goats, and make the cheese which is ripened in the mountain caves. As winter comes on they retreat again to the valley. (See "Human Geography," Book I).

QUESTIONS AND EXERCISES

1. On a map of Europe mark the countries of this group, namely, those having a Mediterranean climate. Mark in the main features of each, the mountains, rivers, coast, waters, islands, volcanoes, chiefly those mentioned in the lesson above, and others in which the pupil individually may have an interest from his own reading.
2. What is a Mediterranean climate? Name countries in each continent of this type.
3. What are the products of the European countries on the Mediterranean? Where are cork, currants, and sponges obtained?
4. Describe Spain and Portugal briefly under the heads of "Locations, surface, animal products, plant products, minerals, cities."
5. Write an account of Italy under these heads: Mountains, volcanoes, island possessions, occupation of the people, food, animals in use, plant products, manufactures (mention Borsalino hats sold in our stores for men, and straw hats from Leghorn), five cities and importance of each.
6. Tell about Greece under the following heads: Surface, coast-line, history, ruins, cities, products.
7. Why do people visit Switzerland? What are the chief occupations? Describe the life of a country boy there. Name two tunnels in the mountains, and tell what use is made of them. What products do we get from the Swiss?
8. Review questions. Supply the words in the blanks. (Tell in what country.)
 - (a) A city noted for its art galleries is _____. Three famous artists born there are _____. A city built on islands is _____.
 - (b) A city where watches are made is _____. A city near a volcano is _____. Two cities near which there are old ruins are _____. A manufacturing city in Spain is _____. A seaport provided for the use of Hungary is _____.
 - (b) The Plain of Lombardy is formed from soil brought down by _____. Spain is separated from France by _____. Near Granada in Spain are the ruins of _____.
 - (c) Gibraltar is a strongly fortified place ____ (where?) Malta is also strongly fortified and is an island ____ (where?) Malta is also strong fortified and is an island ____ (where?) These are called "coaling stations" because _____. They are in the possession of ____ and guard the trade route to _____.

ELEMENTARY SCIENCE

G. R. Rowe

GRADE VII

LESSON VI

FALL STUDIES OF ANIMAL LIFE (Continued)

Birds

How Birds are Recognized.—Birds differ from other living creatures so clearly that even the most unobservant of children can name their commonest characteristics almost at once. Birds are two-legged creatures, and are provided with wings, although not all are able to fly. All birds are feathered, and in this respect they are different from other creatures entirely. Their mouth parts consist of a bill, with which the bird is able to peck or tear food or crush seeds, but they cannot chew food as animals do.

Scientists who base their studies on the theory of evolution have stated that birds and reptiles are closely related. Long ago, reptiles were winged, although none are so now. Also, some remains of birds found as fossils in rocks are toothed like the reptiles, although we have no toothed birds now. Birds and reptiles are alike in that the young of birds are hatched from eggs, as many reptiles are.

Birds are two-legged. They have a pair of wings, and are clothed in feathers. They have bills or beaks of hard, horny material. Most wild birds in their wild state are able to fly, although some, like the ostrich, are unable to do so. Many birds are clothed in beautiful plumage, especially the male bird. Examples are the Bird of Paradise, the Peacock, and the European Pheasant. Many birds are songsters. Usually they are dull of plumage.

Usefulness of Birds.—The vast majority of birds are useful to man, and there are scarcely any that something good cannot be said for. They are the most interesting of the wild creatures, and the most admired for their beauty of song or plumage or habits of life. Many birds check the ravages of destructive insects. Some destroy destructive animals. A few are in disfavor owing to their destruction of fish. Some, also, are in disfavor on account of their destructiveness of useful crops.

Birds are found in all lands and in every kind of climate. The reason for this may be partly owing to their ability to fly rapidly from place to place, and can easily find a new locality if their present one is unfavorable. Different species have adapted themselves to different ways of living. Some prefer the water and are swimmers and divers, as for ex-

ample, the Ducks, Gulls, Geese. Some prefer the shore, and are known as waders; examples are the Snipe, Yellow-legs, the Cranes, and the Blue Heron. A great many perch in trees as, for example, the Crows, Blackbirds, Sparrows, Robins, etc. Some are ground birds to a greater or less extent, such as the Ruffed Grouse, and the Prairie Sharp-tailed Grouse.

Study of the External Parts of a Bird.—It is not expected that pupils of this grade shall be expected to become masters of the technical names relating to bird study, such as are used in the zoology texts. It is desirable, however, that the descriptions given in the bird books should be intelligible to the pupil. A book such as "Taverner's Birds of Western Canada," issued by the Department of Geological Survey, Ottawa, should be in the possession of every home in the country. The colored illustrations are very helpful in identification of the various species of birds. The printed descriptions are, however, equally important and it is desirable that the terms used in the description of birds should be understood.

Classification of Birds.—Birds may be classified according to (a) structure, (b) according to their habits, (c) according to their migrations, or (d) according to their habits.

Under the head of structure we would require to investigate a great many facts which only a skilled scientist might be expected to know, and this classification would be too advanced and difficult for pupils of this grade. It is of value, however, to know that structurally the Jays, the Crow, the Magpie, and the Raven are related or, as we say, form one family. So also do the Hawks and Eagles, the Prairie Chicken and Partridge, the Robin and Thrush, etc.

As to migratory habits, we have the following classes:

1. Summer residents, as the Crow, Blackbird, Wren, etc.
2. Winter residents, as the Pine Grosbeak, Snowbird, Red Poll, etc.
3. Permanent residents, as the Blue Jay, Horned Owl,

Arboreal or Perching Birds.—This class or family includes by far the greatest number of our best known birds. Their feet are so constructed as to form a perfect organ for grasping a perch. Their toes are never united by webs, and in many cases are cleft right to the base like the fingers of the human hand. The hind toe bends towards the others like a thumb, the whole forming a foot particularly suited for perching. To this family belong the Blackbird, Bluebird, Bobolink, Canary, Catbird, Cowbird, Crow, Cuckoo, Goldfinch, Grosbeak, Jay, Kingfisher, Lark, Magpie, Meadowlark, Oriole, Robin, Snowbird, Sparrow, Swallow and numerous others with which we are not quite so familiar.

The Robin is sometimes called the most native and democratic of American birds. The Robins are so sociable and are seen in such numbers around our homes that they are not appreciated nearly so much as they would be if they lived the secluded life of the woodland birds. The Robin is a rather large bird measuring about ten inches from beak to tail. His plumage is attractive, the orange-red breast contrasting prettily with the olive-grey upper parts, brownish wings and black head. The throat is streaked with black and white, and white markings are found on the tips of the tail feathers and below the tail. The bill is yellowish with a dark tip; the feet are dark. The Robins are to be found all over the North American Continent and their winter migrations take them south to Guatemala in Central America. They are among the first birds to come back to us from the south in the spring and their appearance is always a sure sign of spring. They usually return to nest in the same spot, year after year. A favorite site is in a crotch on a horizontal branch or a ledge about a barn or house. The nest is fashioned into a cup-shaped mold of straw, rags and paper cemented together with mud. The eggs are four in number, and are of a greenish-blue color.

Robins are voracious eaters and over half of their food consists of fruit. Their food also includes large numbers of insects and worms, and for this reason they are an aid to farmer, gardener, and horticulturist.

By studying several other birds belonging to the arboreal family, we find that no two of them are exactly alike, the only characteristic they have in common is the curious adaptation of their feet for perching. To aid in a ready recognition of different birds we shall find that a detailed study of their main characteristics, as we have done in the case of the Robin, is necessary.

How to Study Birds.—For convenience and brevity the following arrangement will be found useful:

1. Length.
2. Description: (a) coloring, (b) beak, (c) feet.
3. Nesting: (a) location, (b) type, (c) number of eggs, (d) color of eggs.
4. Habits: (a) migration, (b) range, (c) social habits, (d) food.

Water Birds. (a) Swimmers.—All swimming birds have two common characteristics, viz., webbed toes, and oily feathers.

Webbed Toes.—Their toes are usually very long and joined together by a very thin skin which enables them to use their feet as paddles to propel them through the water.

Oily feathers make the water run off their bodies, preventing it from reaching the skin.

The swimming birds with which we are most familiar are the Goose, Swan, and Duck.

The Mallard Duck.—Length, about twenty-three inches.

Description, (a) male: head and throat glossy green, a white ring around the neck, breast reddish, belly grayish white, back gray, wings purplish bordered by black and white, bill greenish yellow, feet red; (b) female: plain brown or buff streaked with darker brown or grey, bill blackish with orange blotches, otherwise same as male.

Nesting: nest of grass lined with feathers, on the ground, sometimes at a considerable distance from water. Eggs, bluish-white, generally about ten.

Habits: A plentiful summer resident around all the lakes across the prairie, going south only when the lakes freeze over in the fall. Its food consists chiefly of insects, frogs, and small fish, as well as grains, grasses and other vegetable matter.

The Mallard is the original wild duck from which some of the domestic varieties were derived.

Another example of its power of adaptation is the change in feeding habits since the prairie has become settled. Although naturally a water bird, it has taken quite readily to a diet of wheat or barley, and in the fall the flocks from any lake pay regular visits to the stubble fields.

Water Birds. (b) Waders or Shore Birds.—This class includes all water birds which live and feed in marshes and around the shores of lakes and rivers, and which cannot swim but are peculiarly adapted to wading and feeding in shallow water. The general characteristics of these birds which adapt them to living and feeding in shallow water are their long legs, necks, and bills. Those most commonly found on our prairies include the Heron, Bittern, Crane, Snipe, Sandpiper, Curlew, Yellow-legs, and Plover.

The Sandhill Crane.—Length, forty to forty-eight inches.

Description (a) adult: light lead-gray, never pure white, the wing tips darker and the shafts of the primaries white, head naked behind the bill which is five inches or more in length. The legs are long and bare and the feet not webbed; (b) young: rusty brown with head all feathered.

Nesting: On some elevation such as an old muskrat house, rising out of the water in a marsh. Eggs two, gray with brown spots.

Habits: Lives chiefly in marshy lands, spending its summer in North Temperate regions, but making long migrations to the south in winter. They feed chiefly in the early part of the day on vegetation matter, insects, frogs, worms, reptiles, small fish and eggs of water animals. One of them, however, always stands on guard to warn its mates of approaching danger.

Birds of Prey.—This class includes all Vultures, Hawks, Eagles, Ospreys, and Owls, and are distinguished by their strong, hooked bills and claws in the form of talons. With these talons they catch their prey which they tear to pieces with their hooked beaks. Their main food is the flesh of birds and animals. They are sometimes called carnivorous birds.

The Duck Hawk.—Length, about eighteen inches.

Description: Upper parts uniform, rich, dark, bluish-slate color, shading to bluish or slaty-black; under parts varying from white to buff, unmarked on the throat, the white running up the sides of the head, below the throat the white marked with dark spots or bars. Tail and upper coverts barred with blackish and gray. Wing tips blackish. Legs feathered only a short way down the front. Toes very long. Bill bluish-black. Young resembling the adult but streaked rather than barred below.

Nesting: Nest on cliffs or in hollows high up in trees. Eggs, three or four, variously clouded with yellowish or brown hiding the ground color.

Habits: A migrant or possibly summer resident, more plentiful in the western part of the prairie than in Manitoba. The Duck Hawk is the true Falcon of America, the most typical bird of the whole class. It is unequalled for skill and courage and will attack its quarry on the wing, carrying off birds larger than itself, its very long talons enabling it to grasp its prey. It migrates regularly north and south, following the duck migrations of the spring and fall, and preying not only on the ducks but on the larger shore birds. It is easy to distinguish by its peculiar bluish-gray color, its long tapering wings, its speed and the dash with which it attacks even larger birds by dropping on them from above.

The Flight of Birds.—It is the modification of the fore-limbs or "arms" of birds into wings which gives them their most wonderful distinction, the power of flight. From the "arms and hands," as they may be called, grow strong, heavy feathers, making a broad surface with which the bird can beat the air; while above and below these heavy quills there are short feathers which prevent the air from passing through. The tail does not help much in flight, but is rather a rudder by which the bird steers itself and holds its body level. Powerful muscles on wing and breast supply the flying power to birds.

Feathers.—That birds are among the most beautiful objects in Nature is due not only to their grace but to their clothing of feathers. These feathers, while they take the place of hair which grows on four-legged animals, do not grow from all parts of the body. They grow in certain definite areas or patches and the spaces between may be bare

or covered with down. Usually, however, the feathers overlap enough to furnish a complete coat. The wing and tail feathers are always the largest and strongest.

EXAMINATION QUESTIONS

1. Sketch the habits of nesting, food-getting, flight, and other facts of interest in the case of each of the following, and briefly describe for purposes of identification: Robin, English Sparrow, Teal Duck, Song Sparrow, Barn Swallow, Night Hawk, Black Tern.
2. Make clear the distinction between the Sandhill Crane and the Blue Heron (also sometimes called a crane).
3. What resemblance do you notice among all the Sparrows, having in mind the English, Tree, Vesper, Canadian Song and other Sparrows. (Note size, color, food, form of bill, etc.)
4. Mention six different ways in which birds in general differ from animals.
5. Mention resemblances between birds and animals, such as two eyes, four limbs, a heart, etc. (Name three others.)
6. Name ten summer residents among the birds.
7. Name four winter residents, including some occasional visitors.
8. Name ten birds resident all the year.
9. How would you distinguish a wading bird from a swimmer? A bird of prey from a seed-eating bird? A wood-pecker from a seed-eating bird?
10. How do Ducks and Geese keep their feathers oily and dry? In other words, why does water run off a Duck's back?
11. What is the favorite food of each of the following: Robins, Swallows, Sparrows, Woodpeckers, Wrens, Bluebirds, Owls, Wild Ducks, Ruffed Grouse?
12. Where do the following place their nests; tell of what each is made: Crows, Red-Shouldered Hawks, Prairie Chicken, Night Hawks, Wild Ducks, Cowbirds, Wood-peckers, Highholders, Brewer's Blackbirds, Kingfishers, Cliff Swallows, Orioles, Mudhens.

LESSON VII

FALL STUDIES OF ANIMAL LIFE (Continued)

Classes of Birds, Migration, Bird Enemies

Forms of Feet and Bills.—We may tell at a glance, after a short study of the different forms of birds, what sort of life each is adapted for and in a general way the nature of its food. Webbed feet are characteristic of swimmers, a strong hooked bill belongs to a flesh-eating bird such as the Eagle or Hawk, and so on. A short discussion of the

relation of feet and bills, in form, to the life of the particular type of bird is given in the notes that follow.

Certain ground birds scratch for their food among the leaves or grass on the ground. Examples of these are the Hen, Turkey, Ruffed Grouse. The bills of all of these are strong, curved at the tip slightly. The feet are provided with strong toes on which are short, stout nails. These birds perch at night but feed for the most part on the ground.

Many swimmers among the birds have flat broad bills and webbed feet. Among these are the various kinds of Geese and Ducks, both wild and domesticated, and the Swans. Of Ducks we may name the Mallard, the Teal, the Spoonbill or Shoveller, the Widgeon, the Canvasback, the Goldeneye, and among Geese the Canada Goose, the Brant, and the Wavy. All these are native to our province and may be seen by any observant boy or girl. The webbed feet are so formed as to help in swimming, and with the broad beak with cross-ridges at the side the birds are able to sift out of the water where they feed the small insects or seeds on which they feed. Watch how Ducks eat some grain which has been placed in water in a pan.

Woodpeckers have long, sharp-pointed beaks for boring holes in the decayed wood of trees in their search for the grubs of borers among the insects which form their chief food. The tongue of the Woodpecker is pointed like a spear and with it they are enabled to draw the larvae from their burrows in the wood. The claws of the Woodpeckers are in some of the species arranged two forward and two back so as to enable the bird to cling upright to the bark of trees, in which they also use the stiff sharp-pointed spines of their tail feathers.

We have in this province the Red-headed Woodpecker, the Hairy, the Downy and the large Three-toed Woodpecker. Then, also, there is the Highholder or Flicker of the Woodpecker family, which has some habits more like the ground birds than the Woodpeckers.

Hawks, Owls, and Eagles, as mentioned above, being flesh-eaters, are provided with strong curved beaks by means of which they are enabled to tear the flesh of their victims. Also the feet consist of strong toes provided with long sharp claws with which they are able to seize and kill small animals and birds. Owls search for their food at night, and feed on small animals and birds. The larger Hawks kill Rabbits, Squirrels, and Gophers.

Wading birds are easily known by their long bills and legs, and their slender spreading toes with which they can walk on the yielding mud of the shores of a stream or lake. With their slender bills, the Snipe reach into the mud and find the insects, snails or small frogs on which they feed. Cranes find fish and frogs in such places, and the Blue Heron and Bittern find similar food.

Migration of Birds.—Almost alone of all living creatures birds have the instinct for migration. It is true that a few forms of our butterflies move northward as summer draws near; also the Caribou of the northern part of our Dominion move south in great herds as winter approaches to get the shelter of the timber. But migration is a habit with a great majority of the species of birds. Some travel vast distances. The Arctic Tern, for example, known to all who visit the lakes in our Western country as a noisy whitish bird of the Gull type, spends the months of our winter in the Antarctic continent, and covers in its migrations a distance about equal to half the circumference of the globe. The Golden Plover winters in the Argentine. Most of our shore-birds go as far as Mexico and the West Indies.

What causes the migration of birds is not altogether understood. One reason for migration is the depletion of the food supply of most birds in the winter season. It is not agreed that the cold weather drives them south, for most birds which stay with us in summer are well able to stand the severest cold of our climate. It should be kept clearly in mind that our country is the real home of the birds which stay with us in summer, for no birds nest while on their southern visits. The homing instinct is strong with most birds and we all know instances of birds which return again and again to their familiar nesting place on their annual migrations.

Permanent Residents.—These are not migratory and they include the Woodpeckers, excepting the Red-headed species and the Flicker, the larger Owls, the Blue Jay, and Canada Jay (Whisky-jack), the Magpie, and some others.

Winter Visitors.—These move no farther south on their migrations than the settled districts of the province. Among them are the Snowy Owl, the Snowbird, the Evening Grosbeak, the Pine Grosbeak, the Red Poll, etc.

Value of Birds to Man.—Among the services of birds to man are the following:

1. Many species destroy insects. Practically all of the medium and smaller birds feed their young on insects, even if later their food may be seeds, berries, or smaller animals. It is when raising their young that birds are most beneficial to us in a direct way.

2. Many species of birds make use of seeds as their chief food. Very seldom are the seeds destroyed of any value to us. Often, on the other hand, the seeds destroyed are those of noxious weeds. The Snowbirds and Red-polls may be seen in the fields and by the road-sides feeding on the weeds

whose seed pods show above the snow. All the Sparrows are seed eaters, so also are the Juncoes, and the Goldfinches.

3. The work of the Swallows, Swifts, Night Hawks and the Flycatchers (including the Kingbird) should be noted. These may regularly be seen catching insects while on the wing.

4. Gulls, Blackbirds, Crows, and Robins are frequently seen in the cultivated fields in search of the white grubs, wire-worms, cutworms, army worms and whatever other insects may be found. The Gulls have frequently been known to save whole communities in the West from a plague of grasshoppers and army worms.

5. The Hawks and Owls devour mice and gophers as well as a large number of insects.

6. Game birds are well worth preserving for the sport they afford. Among the species protected by law on this account are the various kinds of Grouse, Ducks, Geese, Sandhill Cranes, Plovers, and Snipe.

Harmful Species.—In this list may be classed the Crow, the Magpie, and some of the Hawks and Owls.

The Crow was not originally so numerous in the West as it is now. The reason for its rapid increase in numbers is probably the killing off of its enemies by the settling of the country. The Crows are the enemies of other birds, as they eat the eggs in every nest they can find, or carry away and devour the newly-hatched birds. Game birds such as Ducks and Prairie Chicken suffer especially. At any other time of the year Crows are for the most part beneficial, for they eat numbers of grasshoppers, cutworms and beetles.

The Great Horned Owl is the enemy of birds of every kind and its numbers fortunately are few. The other Owls should not be blamed for the faults of this bird.

Occasionally Hawks become troublesome about the farm-yard, by their theft of young poultry. In such cases the destruction of the robber is necessary. Otherwise the Hawks should not be disturbed as their food is largely Gophers, Mice, and insects.

Fishermen on some of the inland lakes are sometimes heard in condemnation of certain birds whose food is chiefly fish, such as Divers, Pelicans, Cormorants, Herons and Kingfishers. The damage done by these, however, is comparatively small, and the objections to them should not be taken too seriously, as the fish they eat are the kinds that are of least commercial value.

Protection of Birds.—1. One great danger to our migratory birds is that there is a tendency to regard them as not our particular care, since they spend only part of the year here. The same feeling exists in the southern areas where they winter. It was with this in mind that a treaty

has been made between Canada and the United States by which each agrees to pass laws for the protection of Ducks, Geese, and others of the migratory birds. Game sanctuaries have been established in various parts of the country, where shooting is forbidden. In the United States, private bird sanctuaries as well as national ones on the Gulf of Mexico and elsewhere will help to prevent the extermination of desirable species.

2. The laws of the Canadian provinces forbid entirely the shooting of any but destructive birds, or game birds, except in the open season.

3. Public sentiment needs quickening in the matter of bird protection. The interest of school children should be aroused in the life of birds, and to learn to value them for their many attractions as well as value to the farmer.

The Enemies of Birds.—Among these may be enumerated Coyotes, Cats, Weasels, Lynx, Foxes, Snakes, Red Squirrels, and certain destructive birds previously mentioned. The Cat is the worst enemy of birds in the neighborhood of our homes, and if Robins, Bluebirds, Wrens, and swallows are desired in the neighborhood, Cats should be banished.

QUESTIONS AND EXERCISES

1. What are the forms of the bills and feet of birds that scratch on the ground for their food? Name five of such birds, wild or domesticated.
2. Describe the feet and bills of Ducks and Geese. How do these birds secure their food?
3. Describe the bill of birds which get food in decayed wood of trees. Name three such birds.
4. Describe the bills and feet of carnivorous birds.
5. Name six examples of wading birds known to you. Why are the bills slender and long, the necks long, the legs long, the toes long?
6. Name some permanent residents among the birds, some winter visitors, and some migratory birds.
7. What are the reasons for migration of birds?
8. What reasons are there for the attempts to lessen the number of Crows?
9. Can you state any harm done to crops by Blackbirds?
10. Find in a "bird book" such as Taverner's "Birds of Western Canada," the Marsh Hawk, Water Ousel, Blue Jay, Great Horned Owl, Hawk Owl.
11. Explain the Migratory Birds Convention between Canada and the United States.
12. Name the chief enemies of birds.

QUESTIONS AND EXERCISES

1. Name birds that secure their food by catching insects when on the wing. Name some that catch insects on the ground. Name those that eat fish. Name those that seek their food in the bare cultivated fields; those that find it by the shore; those that find it in deeper water; those that prey on small animals or birds; those that search the bark of trees or decayed wood for food; those that eat wild fruit in the late summer.
2. How are birds different from animals in covering, movements, mouth-parts, care of the young? Why are birds more commonly seen than wild animals? Why are they more widely spread over the earth?
3. Make a drawing of a typical bird form and name its parts as shown in the diagram in the lesson.
4. Show how the bill and feet of the Grouse, barnyard Hen and Turkey are suited to their manner of life and food-getting.
5. What advantages are there in the form of bill and feet of Ducks and Geese.
6. Describe the form of bill and feet of wading birds and name examples of birds of this kind.
7. How are the bill and claws of Hawks, Owls, Eagles alike and for what purpose are they specially suited?
8. Describe the bill and feet of the Woodpeckers, and tell the habits of life that these are adapted for.
9. Describe the special form of bill of the following: Night Hawk, Loon, Cormorant, Pelican, Grosbeak, Kingfisher.
10. Make lists of birds you have seen under the following heads: perching birds, swimmers, waders, flesh-eaters, ground birds, woodpeckers.

LESSON VIII

FALL STUDIES IN PLANT LIFE (Continued)

Study of the Survival of Plants Over the Winter Season

Seasonal Changes.—A great difference is apparent in the appearance of things between summer and winter. In nothing is the change so apparent as in the effects of the seasons on plant life. All the herbs die down to the level of the ground. Some of them die altogether and the species is "the fall of the leaf." Among the deciduous trees found in Manitoba are the Poplar, Balm of Gilead, Cottonwood, White Birch, Manitoba Maple, and Oak. Most of the shrubs also may be classed as deciduous. Among them are the Saskatoon, Pin Cherry, High-bush Cranberry, Wolf Willow, Silver Berry, and others. The word "deciduous" is from the Latin, and means "falling down." It is a mistake to think that the leaves of these trees fall off because the frost

kills them. The fact is that the work of the leaves is completed when the season's growth is over, and the leaves naturally ripen and fall off. In some cases the heavy early frosts may hasten the process. Nature makes careful preparation for the fall of the leaf. First the plant foods in the leaf are drained away into the stem and stored up for the beginning of growth the following year. Then the leaf changes from green to yellow, orange, scarlet, or bronze, and it is then that the woods present the vivid hues which we all associate with the autumn season. Next a growth of corky material forms between the base of the leaf-stem and the twig on which it stands. This gradually thickens and soon forces the old leaf off, leaving only a scar where it once was. Look on any twig of Poplar or Maple for these scars. On the Maple they are opposite each other, in the Poplar alternate with each other. Above the scar is a bud all ready to burst into leaf and become a twig in the following year.

Evergreens are so called on account of the fact that the leaves remain on the trees throughout the winter. In countries where there is no winter season or season of drought practically all the trees are evergreen. With us the chief evergreens are the cone-bearing trees, namely, the Pines, Spruce, Balsam, and Cedar. A few low plants that remain under the snow during the winter, such as the Pansy, and Sweet William, are in one sense evergreen also. If we look closely in the neighborhood of the Pine and Spruce trees, we will find that the leaves of the evergreens do not remain on the trees permanently, but that many have fallen off, as evidenced by the carpet of dead leaves covering the ground. Every spring, also, new leaves come at the tips of each of the outer twigs.

We can readily see that the fall of the leaf in the autumn is of advantage to the plant. Broad leaves would scarcely survive the winds of winter, frozen stiff and being beaten back and forth against the frozen branches. They could serve no purpose in winter as trees grow only during the warmth of summer. The narrow needle-like leaves of the Pines and Spruces, of course, come through the winter unharmed.

Buds.—Examine a twig of Poplar or Maple after the leaves have fallen. Above the scar, where each leaf stood, there will be found the so-called winter buds. Examine each closely. They are closely held to the twig so as not to be easily brushed off by the swaying of the branches in the winds. Covering each is a brownish coating. In some plants, such as the Balm of Gilead, this is coated with a gummy substance for additional protection.

It is inaccurate to say that each bud becomes a leaf in the following year. Such a statement betokens careless observation. From each bud there comes, if no accident befall

it, which often happens, a twig in the following season, each twig bearing several leaves and ultimately developing in the course of time into a branch. From the bud also may come a flower or group of flowers along with the number of leaves just mentioned. From each bud on a Willow twig, for example, there will come usually a catkin in early spring, followed by a group of leaves which lengthen out into a twig and later a branch.

Annuals, Biennials, Perennials.—These terms are used to classify plants according to the duration of their life between their growth from seed to the time they themselves as mature plants produce seeds.

A plant that grows from a seed that matures and produces seed, and then dies, all in one year, in an annual. Examples of annuals are Wheat, Oats, Rye, Flax, Corn, Sweet Pea, Nasturtium.

Plants which begin their growth late in the year, that survive the winter, and then ripen early the next season, are known as winter annuals. Fall Wheat and Fall Rye are winter annuals. The term is especially applicable to certain noxious weeds which manage in this way to dodge the farmer's plow or cultivator and thus become a nuisance. Amongst them are Hare's Ear Mustard and occasionally Shepherd's Purse.

Biennials.—Examples of these among cultivated plants are the Turnip, Beet, Onion, Carrot, Parsnip. Not many of us have seen these produce flower and seed, yet if we were to plant them in the spring after wintering them in the cellar, they would send up strong stems on which flowers and seed would be borne. It is in this way that the seed is obtained, as it is regularly done in some of the countries of Europe. They are called biennials because they take two years to complete growth, the term being derived from the Latin which signifies "two years."

Certain weeds are biennials, among them Yellow Evening Primrose and Tansy Mustard. They are troublesome on account of their rapid growth, and being quite inconspicuous the first year are liable to be left undisturbed. Sweet Clover is a biennial, and if it is grown for fodder or pasture must be resown every second year.

Perennials.—These are plants that grow continuously for a number of years. Examples are all the trees and shrubs, many garden plants such as Columbine, Delphinium, Horseradish, Rhubarb. A perennial garden should be a feature of every home planting scheme.

Perennials give us some of our worst weeds. Among them are the Canada Thistle, the Perennial Sow Thistle, the Yellow Dock, the Burdock, Blue Lettuce, Oxeye Daisy, Sweet Grass, and Quack Grass. Most of these spread by

their seeds as well as by their underground root stocks, and in the case of some of them the fight against them on the part of the farmer is never entirely successful.

Knowing the nature of a weed is usually the first necessity in planning methods of eradication. For annual weeds, the method is to prevent the production of seed. If this is done and no such seeds are sown with the grain crops or otherwise scattered about the fields the battle is won. Examples of annual weeds thus combatted are Wild Oats, Wild Mustard, Ball Mustard, Lamb's-quarter.

Biennials, as we have seen, require careful watching lest they get a foothold during the first year.

Perennials require special cultivation to check them. The duck-foot cultivator will help to remove the underground stems and bring them up to the sunlight where exposure will kill them. Summer-fallow carefully cultivated is ordinarily used to combat all weeds. On small plots, a cultivated crop, like potatoes or roots, will keep them down, and free the soil from them.

QUESTIONS AND EXERCISES

1. Name ten deciduous trees and five evergreens.
2. What causes the leaves of deciduous trees to fall in the autumn?
3. Explain the cause of autumn colors of leaves. What are the prevailing autumn colors of Oak, Poplar, Rose, Choke-cherry, Maple?
4. Examine buds of Willow, Poplar, Balm of Gilead, Birch, Maple. Point out the leaf scar. Where is it? Why was there no injury to the tree at that point? Point out means of protection of the bud in question, covering, color.
5. What are buds? Do you agree that a bud later becomes a leaf?
6. Name six annual weeds. Name six annual farm crops. Name six annual flowers. Name two winter annuals. Look for these in the fields where they will appear green.
7. Name six biennial farm crops. Name two biennial weeds. Show that any one of these is a biennial. How could we grow our own parsnip seed?
8. What are perennial plants? Name three perennial farm crops. Name all the perennial flowering plants you know. Name four perennial weeds. What is the nature of these last? How can Couch Grass best be eradicated? How is the Canada Thistle best dealt with?

LITERATURE

C. S. Edwards, B.A.

GRADE VIII

THE BATTLE OF FLODDEN

Introduction.—This is a selection from Sir Walter Scott's long poem "Marmion." It is a narrative poem the details of which are the most part fiction, like any novel, but there is given, nevertheless, a graphic description of the battle, and the facts are given with historical accuracy. The battle was fought in England near the northern border, between English and Scottish armies, the former led by the Earl of Surrey, and the latter by the King of Scotland, James IV. The Scots suffered a terrible defeat, and their King, many of his nobles, and many of their men were killed.

Analysis of the Poem:

- I. The smoke intended by the Scots to hide their attack
- II. Lady Clare's two companions leave her to join in the fight.
- III. Marmion is brought to her wounded.
- IV. He gives orders to attack the Scottish centre.
- V. Lady Clare brings him water from a near-by spring.
- VI. Marmion expresses penitence for the wrongs he has done.
- VII. Marmion dies while the priest and Clare are in attendance on him.
- VIII. The battle is stubbornly fought. The lady and monk take refuge in a chapel on the Tweed, near the scene of battle.
- IX. The Scottish king is killed, and his army withdraw from the field.

Synopsis and Notes:

Sec. I.—As the smoke of the battle cleared the two opposing armies could be seen in a fierce hand-to-hand conflict. On the English side could be seen the banner of Marmion on which was his emblem, a falcon, the white banner of Tunstall, and the banner of Howard, on which was a lion. Opposed to these were the Highlanders, the Gordons, and the Border clans led by Huntley and Home. The English bowmen took an effective part in the fight.

"Falchion" means sword. "Crests" means the plume on the helmet. Note the similes in "as in the storm," "like foam," "like rain."

QUESTIONS

1. Explain "freshening western blast," "shroud of battle," "pennons," "sea-mew," "arrow-flight," "stainless Tunstall."

2. Locate Flodden, and give the date. (See map in Public School Geog., p. 129.)
3. Name the leaders and the forces on each side as mentioned here.

Sec. II.—On the left flank, viewed from the Scottish side, Lennox and Argyle were beaten by Stanley, although the Highlanders threw their shields away and charged desperately, sword in hand. But on the Scottish right the Border clans were gaining against Marmion and Howard. Lady Clare had remained in company of two knights, Blount and Eustace, in the rear of the English army. Blount could not bear to see his party beaten, and he rushed into the battle to rescue the lost banner of Marmion. At length Marmion's steed with empty saddle came tearing past the hill where Clare and Eustace stood. The latter could restrain himself no longer and rushed into the fight.

"Bid your beads" means say your prayers, using the beads as Catholics do.

QUESTIONS

1. Point out the similes in lines 45, 60, 64.
2. Explain the personification in line 33, and the metaphor, line 72.
3. Describe the wild career of Marmion's steed. What did it signify to Eustace?

Sec. III.—Clare was left alone, but soon two horsemen rode up bearing a wounded knight, who proved to be Marmion, wounded and senseless.

"Van of England" is the front of the army. "Saint George" is the patron saint of England. "Unnurtured" is untrained. "Wilton" was the person whom Marmion had tried, by forging letters, to injure in the estimation of the Lady Clare.

QUESTIONS

1. Describe the condition of the wounded Marmion. Should line 91 end in a question mark?
2. Scott gets vividness in telling the story by use of graphic expressions, exclamation, direct quotation, concrete details. Mention some examples of each of these.

Sec. IV.—Marmion on recovering consciousness was aware that his wounds were fatal. He nevertheless gave hurried orders which when carried out saved the day for England. Surrey was the English commander. Dacre was commander of the reserve. Marmion saw that only an attack on the Scottish centre would win the battle.

"The Admiral" was Thomas, son of Earl of Surrey, commander of the fleet. "Casque" is helmet. "Hearts of hare" means timid. "Redeem by pennon" means recover his banner. "Signet ring" was used as a sign of command.

QUESTIONS

1. Explain "charge with spur of fire," "my life is reft," "must I bid twice," "all my halls have nurst," "page, squire, groom."

Sec. V.—Lady Clare, in spite of the fact that she might be expected to regard Marmion as an enemy, ran to get water for him from the brook. It was crimsoned with blood from the battle-field. She therefore found a spring, where someone had erected a cross in memory of Sibyl Grey. Clare filled the helmet of the wounded man and returned to him. She found that a monk had arrived and was in attendance on him.

"Aspen" is the common poplar whose leaves tremble with the slightest breeze. "Ministering" means helping. "Runnel" is stream. "Mark" means notice. Lines 160-161 mean that the monk had come to the neighborhood of the battlefield to do the last offices of the Catholic Church to the dead and dying.

QUESTIONS

1. What is Scott's statement regarding the peculiar temperament of women? How is this illustrated partly in the case of Lady Clare?
2. What did the lady find when she went to the stream for water?
3. What is "a little fountain cell"?
4. Give a short account of the events in this section.

Sec. VI.—Marmion, now that he is about to die, feels remorse for the evil he has done. Constance had suffered unjustly by being walled up in a tomb alive, while a word from him might have saved her. He had fought a duel with de Wilton, Clare's betrothed, and it was supposed had killed him. The latter, however, reappears in the story as the Palmer.

Sec. VII.—Lines 201-202 were the words of a song sung by Eustace in Marmion's hearing some time before. Unconsciously it was prophetic. "The lady's voice" is that of Constance (line 188). "Shake the dying sinner's sand" has reference to the hour-glass, filled with sand. To shake it would hasten the running of the sand. "Yon sign"—the cross in the hands of the monk. The words of lines 204-210 are those of the monk.

Sec. VIII.—Roncesvalles—a battle fought with the Moors in which Carlemagne and his Franks was victorious. At Flodden many of the soldiers turned to plunder instead of supporting their leaders. The Scottish king at length was surrounded, but his followers formed a circle about him and fought desperately against the overpowering num-

bers of the enemy. The Monk and Lady Clare took refuge in a neighboring chapel.

Sec. IX.—At nightfall the English leader drew off his men. The Scots king was killed and his army withdrew across the Tweed in disorder. "Dark'ning heath" means the heather on the hiddside which became darker as night approached. "English shafts" are the arrows. "Bill-men" are soldiers whose weapons were bill-hooks, that is a sort of axe on a long handle. "Shivered was fair Scotland's spear"—her army was defeated.

QUESTIONS (Sections VI to IX)

1. Underline the words which you think describe the character of Marmion — courageous, noble, pious, loyal, haughty, gentle, good, revengeful, dishonest, unscrupulous, faithless, fiery.
2. Make statements telling who these are in relation to the story: Home, Blount, the Admiral, Constance, Lady Clare, Lord FitzClare, Chester, Stanley, Fitx-Eustace, Surrey, Dacre, Huntley.
3. Describe the conclusion of the battle using the following hints—The approaching darkness—the circle about the king—the attacks of the English—the need of a trumpet voice to call the Scots from plundering—the death of the king—the English withdraw—the fugitives—what effect the defeat had on the Scots.
4. Do you like reading about battle scenes such as this? Do you approve of literature of this sort? Is there danger, on the other hand, that we may lose some of the spirit that made men heroes? What feeling in men's minds made them fight so desperately?

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It is suggested that the method of study in the class be somewhat as follows: The class may be asked to read the first story (*Twelfth Night*) completely through without help from the teacher. They may be asked to make a topical analysis of the story and hand it in as an exercise. Too much should not be expected, however, as some pupils will find difficulty in following the thread of the story. As the selections are to be read as literature, each should be read through in class. The teacher can do much here to add

vividness and interest to the narrative. How impossible the story of "Twelfth Night" is may be left to the pupils to point out as the reading proceeds. The charm of the quaint old-time manners, and of the odd situations and characters will be acknowledged. It should be the purpose of the teacher to make each of the tales an unforgettable impression so that the average pupil will desire to read the story again in the original Shakespearian play. There should be no dull or unpleasant task for the majority of pupils in connection with literature.

Twelfth Night

1. Place—The scene is laid in Illyria on the Adriatic coast.
2. Chief Characters—Sebastian and Viola, twin brother and sister; Orsino, duke of Illyria; the Lady Olivia, who later married Sebastian; Antonio, the sea-captain, and others.
 - (a) **The Shipwreck.**—Sebastian was supposedly drowned. Olivia with the help of the captain of the vessel becomes a page, disguised as a boy, in the service of the Duke. We speak of her now as Caesario.
 - (b) The Duke and Olivia. Olivia has rejected his offer of marriage. Caesario is commissioned to plead for him.
 - (c) An amusing situation: Olivia falls in love with the page. The page is in love with the Duke.
 - (e) The Duel: A jealous lover of Olivia's makes an attack on Caesario, but the latter is rescued by the timely arrival of Antonio. He, however, was arrested for having taken part some years before in a sea-fight against the Illyrians. Meanwhile the twin brother of Caesario, who resembles her very closely, continues the duel, but it is stopped by Olivia.
 - (f) The confused situation caused by the resemblance between Caesario and Sebastian, is finally cleared up. Olivia marries Sebastian, and the Duke, forgetting his love for Olivia, marries the "boy" that he calls Viola. Both were wedded on the same day by the same priest.

QUESTIONS

1. Why is this called a comedy and not a tragedy? Is a comedy necessarily humorous judging by this? Is there a villain among the characters? Are there any violent deaths? What rather unusual situation causes the confusion and misunderstanding in the later part of the story?
2. Why does Viola take the disguise of a page? How is she introduced to the Duke? What is troubling the Duke's mind? What errand does he assign to Olivia (that is Caesario)? What particular instructions does he give her? Why does he not go to her himself? How

is the page enabled to see the Lady? What impression does he make? What rash vow had Olivia made regarding hiding her face, and how was she persuaded to change this?

3. What was the effect of the song on Viola, and what did Orsino remark about this? On the second visit of Viola to the Lady how was she received? What promise did she make Olivia, and how was it easy to make it?
4. Who challenged Viola to a duel and why? How was she defended? Who was the stranger, and why did he seem so friendly? Why did he ask her for his purse? What caused the misunderstanding? Why was he arrested?
5. How had Sebastian escaped from the shipwreck? What caused him to visit Illyria? Why had the captain gone with him? What caused the renewal of the duel? How was it ended? What surprised Sebastian in the attentions he received from Olivia? What came of their meeting?
7. In what danger is Viola at this time? Why is she not afraid? How does Olivia learn that she has made a mistake in recognition? How does the Duke change his mind regarding his page? What speeches of hers does he recall? Show that there is a happy ending. Are we told what became of the captain?

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